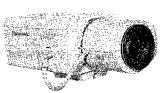
ORDER NO.AVS9402820C8

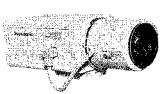
Service Manual

Colour CCTV Cameras

WV-CP210/WV-CP212/WV-CP214



WV-CP210



WV-CP212

WV-CP214

(Lens: Option)

SPECIFICATIONS

Pick-up Device:	500 (H) x 582 (V) pixels, Interline Transfer CCD
Scanning Area:	4.8 (H) x 3.6 (V) mm (Equivalent to scanning area of 1/3" pick-up tube)
Synchronization:	Internal, Line-locked or Multiplexed Vertical Drive (VD2) Selectable
Scanning System:	2 : 1 Interlace
Scanning:	625 lines / 50 fields / 25 frames
Horizontal:	15.625 KHz
Vertical:	50 Hz
Horizontal Resolution:	330 lines
Video Output:	1.0 Vp-p composite 75 ohms / BNC connector
Signal-to-Noise Ratio:	46 dB (AGC OFF, weight ON)
Electronic Light Control:	Equivalent to continuous variable shutter speed between 1/50 sec. and 1/15,600 sec.
Minimum Illumination:	0.6 lux at F0.75 (Equivalent to 2 lux at F1.4)
Gain Control:	Selectable AGC ON (+12 dB) or OFF
White Balance:	Selectable ATW ON or OFF (AWC)
Detail:	Selectable SHARP or SOFT
Lens Mount:	CS-mount
Ambient Operating Temperature:	−10°C -+50°C
Ambient Operating Humidity:	Less than 90%
Power Source:	WV-CP210/A, B, G: 220 - 240V AC 50 Hz WV-CP212E: 12V DC WV-CP214E: 24V AC 50 Hz
Power consumption:	WV-CP210/A, B, G: 3.9W WV-CP212E: 0.2A WV-CP214E: 2.4W
Dimensions (without lens):	67 (W) x 65 (H) x 118 (D) mm
Weights (without lens):	WV-CP210/A, B, G: 620g WV-CP212E: 420g WV-CP214E: 470g

Weights and dimensions indicated are approximate.
Specifications are subject to change without notice.

Panasonic

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included.
Therefore, it should be read carefully in order to avoid any problems.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are indicated by the "⚠" mark on the schematic diagram and the replacement parts list. It is essential that these critical parts should be replaced with manufacture's specified parts to prevent shock, fire, or other hazards.
Do not modify the original design without permission of manufacture.

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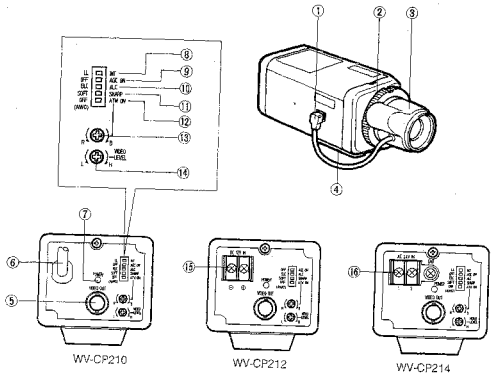
MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS



(1) Auto Iris Lens Connector
This 4-pin connector supplies the power and DC control signal to the auto iris lens.

(2) Flage-back Adjusting Ring
This ring is used to adjust the back focal length or picture focus by rotating this ring.

(3) Lens (Option)

(4) Camera Mounting Screw Hole
This threaded hole (1/4" - 20) is used to mount the camera onto a mounting bracket or tripod.

(5) Video Output Connector (VIDEO OUT)
A 1.0 Vp-p / 75 ohms composite video signal is provided at this connector.
Whenever the multiplexed vertical drive (VD2) signal is supplied to this connector, the camera synchronization mode is automatically set to Vertical Drive Lock.

(6) AC Power Cord

(7) Power Indicator (POWER)

(8) Sync Selection Switch (LL/INT) (WV-CP210/ WV-CP214)
This switch is used to select the camera synchronization mode.
INT: The camera synchronization mode is set to internal 2 : 1 interlace.
LL: The camera synchronization mode is set to Line-lock.

(9) AGC ON/OFF Switch (AGC, ON/OFF)
This switche is used to select the gain of the video amplifier as follows.
ON: When the lens iris is fully opened under a low light condition, a clear picture is obtained by automatic increase of the gain.
OFF: A natural and low-noise picture is obtained under a low light condition.

(10) Electronic Light Control/Automatic Light Control Selection Switch (ELC / ALC)

This switch is used to select the lens as follows.

ALC: Choose this position when using an auto iris lens.

ELC: Choose this position when using a fixed or manual iris lens.

(11) Detail level Selection Switch (SOFT/SHARP)

The detail/aperture level can be selected by this switch. Set the switch to the desired position while observing the picture on the monitor.

Note: Usually set this switch to SHARP position. When Quad System is connected to this camera, set this switch to SOFT position.

(12) Automatic Tracing White Balance Control ON/OFF Switch (ATW, ON/OFF (AWC))

The white balance setting can be selected as;

ON: The white balance is automatically and continuously set by detecting the characteristic/colour temperature of light source through the lens and controlling the gain of red and blue signal even if the characteristic/colour temperature varies.

OFF: The white balance is automatically set and fixed by detecting the characteristic/colour temperature of light source through the lens and controlling the gain of red and blue signal.

(13) ATW Control (ATW ON, R/B)

This control adjusts the level of red and blue colour balance when ATW ON/OFF Switch (12) is set ON position. It is preset at the centre position which usually provides accurate colour reproduction.

(14) Video level Control (VIDEO LEVEL, L/H)

This control adjusts the level of auto iris control when the selection switch (10) is set to ALC position, or the level of electronic light control when the selection switch (10) is set to ELC position.

(15) DC 12V In Terminal (DC 12V IN)

This terminal accepts 12V DC power source (10.5V - 16V)

(16) AC 24V In Terminal (AC 24V IN)

This terminal accepts 24V AC power source (19.5V - 28V). Be sure to connect grounding lead to the GND terminal.

EXPLANATION FOR IC

Main Board

The pin indenfitication of Sample Hold IC2 is as follows.

IC2 (AN2018S)

Pin No.	Pin Name	In/Out	Description
1	NC	-	Not Used
2	BLK	In	Blanking Pulse
3	IN	In	CCD Output Signal
4	VCC	-	+4.7V DC Power
5	SP2	In	Sample Hold Pulse 2
6	SP1	In	Sample Hold Pulse 1
7	GND	-	Ground
8	OUT	Out	CDS Output

The pin identification of Drive Pulse Generator IC6 is as follows.

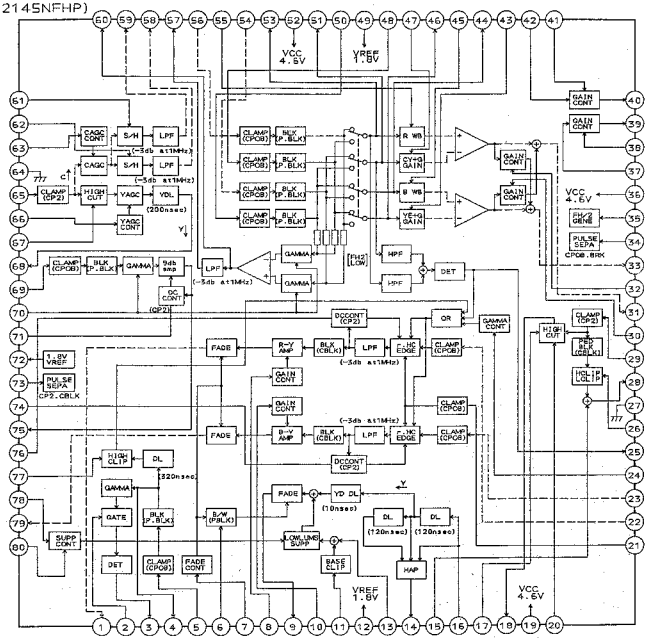
IC6 (YWCXD2404R)

Pin No.	Pin Name	In/Out	Description
1	CLK	-	Not Used
2	INVOUT	Out	Inverter Output
3	INVIN	In	Inverter Input
4	CLR	In	Clear
5	HDSW	In	Horizontal Drive Switching
6	TEST1	-	Not Used
7	TEST2	-	Not Used
8	TEST3	-	Not Used
9	PBLK1	Out	Preblanking
10	PBLK2	-	Not Used
11	CPOB	Out	OB Clamp Pulse
12	PCO	Out	Phase Comparator
13	TEST4	-	Not Used
14	HCLR	Out	ϕH Clear Pulse
15	DCP	-	Not Used
16	DCC	-	Not Used
17	HD	In	Horizontal Drive Pulse
18	VD	In	Vertical Drive Pulse
19	FH2	Out	1/2 Fh Pulse
20	INHD	-	Not Used
21	TEST5	-	Not Used
22	FIFR	In	Field/Frame Select
23	V1	Out	ϕV1 Transfer Pulse
24	VSS	-	Ground
25	VDD	-	+5V DC Power
26	DCLK	In	Serial Clock
27	DATA	In	Serial Data
28	V2	Out	ϕV2 Transfer Pulse
29	V3	Out	ϕV3 Transfer Pulse
30	V4	Out	ϕV4 Transfer Pulse
31	CH1	Out	ϕV1 Charge Pulse
32	CH2	Out	ϕV3 charge Pulse
33	SUB	Out	Electronic Shutter Pulse
34	VDD	-	+5V DC Power
35	H2	Out	ϕH2 Transfer Pulse
36	H1	Out	ϕH1 Transfer Pulse
37	CS	In	Chip Select for Serial Data
38	CCDSW	In	CCD Picture Element Select
39	R	Out	ϕR Transfer Pulse
40	VSS	-	Ground
41	RWi	In	ϕR Width Control
42	RWO	Out	ϕR Width Control
43	CPSW1	-	Not Used
44	CPSW2	-	Not Used
45	DS1	Out	Sample Hold Pulse 1
46	DS2	Out	Sample Hold Pulse 2
47	TEST6	-	Not Used
48	AECNT	In	Electronic Shutter Setting
49	SPO	Out	SP1, 2 Pulse Phase Control
50	SPI	In	SP1, 2 Pulse Phase Control
51	VDRST	In	VD Reset Pulse L : Reset, H : Common
52	CSEL1	In	CLK2 Phase Select 1
53	CSEL2	In	CLK2 Phase Select 2
54	CLK2	Out	Clock Pulse
55	PNSW	In	NTSC/PAL Switching (L : NTSC, H : PAL)
56	VDD	-	+5V DC Power
57	VSS	-	Ground
58	VMD1	In	Electronic Shutter Speed Mode 1
59	VMD2	In	Electronic Shutter Speed Mode 2
60	VMD3	In	Electronic Shutter Speed Mode 3
61	SP1	Out	Sample Hold Pulse 1
62	SP2	Out	Sample Hold Pulse 2
63	XO	Out	2 fck Osillator Output
64	XI	In	2 fck Oscillator Input

The Block Diagram of Process IC8 is as follows.

IC8 (AN2145NFHP)

IC8
(AN2145NFHP)



The pin identification of Sync Generator IC23 is as follows.

IC23 (MN73093)

Pin No.	Pin Name	In/Out	Description
1	FSC4	Out	Oscillator Control DC
2	SLPF	-	Not Used
3	FVRP	In	Sync Frequency Control
4	FVR	In	Frequency Control
5	LCMP	In	Clear
6	CMPO1	Out	Vertical Phase
7	CMPP1	In	Vertical Phase
8	CMPN1	In	Vertical Phase Control
9	LRC	Out	Vertical Phase Control
10	VDD2	-	+5V DC Power
11	GND2	-	Ground
12	HRC	-	Not Used
13	CMPN2	-	Not Used
14	CMPP2	-	Not Used
15	CMPO2	-	Not Used
16	HCMP	-	Not Used
17	DLPF	In	VD2 Lock
18	VLPF	In	Vertical Lock
19	HLPF	In	Horizontal Lock
20	VCXO	Out	Oscilloator Control
21	VCO	Out	LC Oscillator Control
22	DPCO	Out	V. Phase Comparator
23	VPCO	Out	V. Phase Comparator
24	HPCO	Out	H. Phase Comparator
25	MVPC	In	V. Reset Mask Pulse ON/OFF (H : ON, L : OFF)
26	VC1	Out	VCO Control
27	COIN	In	External VCO
28	COOUT	Out	External VCO
29	CLKOUT	-	Not Used
30	GND3	-	Ground
31	VDD3	-	+5V DC Power
32	VC2	Out	VCO Control
33	CXIN	In	External VCO
34	CXOUT	Out	External VCO
35	TEST A	-	Not Used
36	TEST B	-	Not Used
37	TEST C	-	Not Used
38	M1	-	Not Used
39	M2	Out	Gen-Lock Mode Detect
40	M3	-	Not Used
41	CW	In	Colour/B/W Select (H : B/W, L : Colour)
42	VDFD	In	Field/Frame Select
43	LLDET	In	Line Lock Select (H : ON, L : OFF)
44	FVD	-	Not Used
45	FWHD	-	Not Used
46	FBLK	Out	Blanking Pulse
47	VD	Out	Vertical Drive Pulse
48	CP2	Out	Clamp Pulse 2
49	BFP	Out	Burst Flag Pulse
50	GND4	-	Ground
51	RBLK	In	Return Blanking Pulse
52	PWHD	In	Wide Horizontal Drive Pulse
53	WHD	Out	Wide Horizontal Drive Pulse
54	CBLK	Out	Composite Blanking Pulse
55	CSYNC	Out	Composite Sync Pulse
56	PSO	In	Line Lock Coarse Adjust
57	PS1	In	Line Lock Coarse Adjust
58	PS2	In	Line Lock Coarse Adjust
59	PS3	In	Line Lock Coarse Adjust
60	LP	In	Line Lock Pulse
61	GLSYNC	-	Not Used
62	GLVD	In	Vertical Drive Pulse
63	VD2	In	Vertical Drive Pulse-2
64	NP	In	NTSC/PAL Select (H : PAL, L : NTSC)
65	MCONT	-	Not Used
66	MS	In	OSC Frequency Select
67	CLR	In	Clear
68	GLBSC	In	Not Used
69	BSD	In	Not Used
70	VDD1	-	+5V DC Power
71	GND1	-	Ground
72	SCIN	In	4 fsc (17.7 MHz) Oscillator
73	SCOUT	Out	4 fsc (17.7 MHz) Oscillator
74	SCB	Out	Subcarrier B
75	SCR	Out	Subcarrier R
76	SCPO	-	Not Used
77	SCP1	-	Not Used
78	SPCO	-	Not Used
79	SCMP	-	SC Phase Clear
80	SRC	-	Not Used

Modification Procedure for E.V.R. Adjustment Kit

■ **Before start to adjust WV-CP210 series, your E.V.R. Adjustment Kit have to modify for up-to-date version.**

■ The modification procedure is as follows :

- Referring to Fig. 1, remove four screws fixing the Upper Cover of the E.V.R. Adjustment Kit.

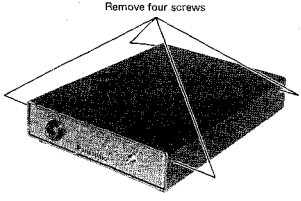


Fig. 1

- Referring to Fig. 2, remove IC5 (ROM IC) on the Main Board of the E.V.R. Adjustment Kit.

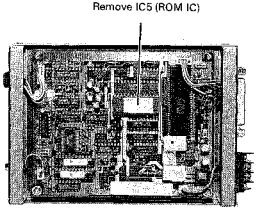


Fig. 2

- Insert the new ROM IC with IC Socket to the Main Board of the E.V.R. Adjustment Kit.
- Mount the Upper Cover of the E.V.R. Adjustment Kit.

■ The part number of new ROM IC with IC socket for E.V.R. Adjustment Kit is YWV0EA0274AN.

About Your Computer

In order to run the E.V.R (Electric Variable Resistor) adjustment program your IBM-PC (PS2or AT type) or compatible must meet the following requirements :

- The DOS Operating System must be 3.3 or higher.
- The Operating System must be 100% compatible with your computer.
- The memory in your IBM-PC must be at least 640K-bytes, and 512K-bytes shall be available to the E.V.R adjustment program.

Installing E.V.R Adjustment Program

- The Example given here is for A 2 drive computer, your procedure might vary slightly depending on drive configuration.
- Formatting new disk and making a copy of DOS Operating System

  a) Insert disk containing DOS operating system into your floppy drive (for example, drive A) and type **A :**
  b) Insert new disk into your floppy drive (for example, drive B).
  c) Format and make a copy of DOS operating system from your original disk to new disk by typing **FORMAT B : / S** and press **ENTER.**
  d) Type **COPY ANSI. SYS B :** and press **ENTER.**

- Install E.V.R Adjustment Program onto formatted new disk with DOS operating system.

  e) Take out original disk containing DOS operating system from your floppy drive (drive A) and insert disk containing E.V.R adjustment program into your floppy drive (drive A) and type **A :**
  f) At the prompt, type **CD IBMPC** and press **ENTER.**
  g) If required, type **COPY CONFIG. SYS B:** and press **ENTER.**
  h) Type **CD PAL.**
  i) Type **COPY ADJ2E. EXE B :** and press **ENTER.**
  j) Type **CD ** and press **ENTER.**
  k) Type **CD SEQ** and press **ENTER.**
  l) Type **COPY CP210E. SEQ B :** and press **ENTER.**
  m) Type **CD ** and press **ENTER.**
  n) Type **CD EVR** and press **ENTER.**
  o) Type **COPY CP210E. EVR B :** and press **ENTER.**
  p) After completing installation of program, you are ready to use E.V.R adjustment program.

Note :

When completed the new disk should be a bootable disk which contains the following files :

1. COMMAND COM
2. ANSI SYS
3. CONFIG SYS
4. ADJ2E EXE
5. CP210E SEQ
6. CP210E EVR

ADJUSTMENT PROCEDURE

1. Test Equipment Required

The following test equipments are required for adjustment.

- Oscilloscope (50 MHz band width, dual trace, delayed with three probes)
- Vector scope
- Frequency counter
- Waveform monitor
- Under scanned colour video monitor
- Lighting (140 footcandles (1400 lux) 3200°K)
- Lux meter
- colour temperature conversion filter (C12, C4)
  Refer following table for coversion filter.

KENKO	C4	C12
KODAK	82C	80B

- Personal computer (IBM-PC/AT or PS2 type)
- Standard straight RS-232C cable
- ALC lens (CS mount)
- Logarithmic gray scale chart (Part No. : YWV2310RB99)

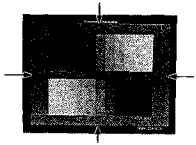


Fig. 1-1

- colour chip chart (Part No. : YWV2100RB98)

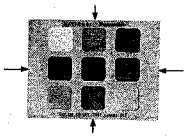


Fig. 1-2

- Extension Board
  Mounting Bracket
  (Part No. YWV0EA0316AN)

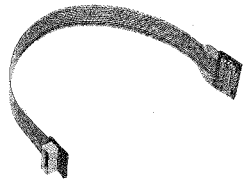


Fig. 1-3

- E.V.R Adjustment kit (YWV0EA0182AN)

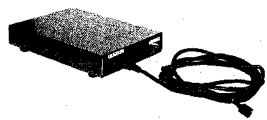


Fig. 1-4

2. Disassembling Procedure for Adjustment

- Remove two screws fixing the camera mounting and remove the camera mounting.

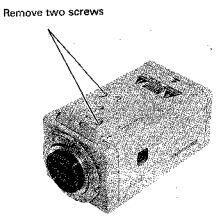


Fig. 2-1

- Remove two screws fixing the bottom cover and remove the bottom cover.

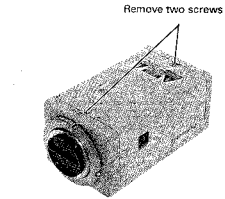


Fig. 2-2

- Disconnect the connectors CN3 and CN1 from the Main board and remove two screws fixing the Main board. Then remove the main board.

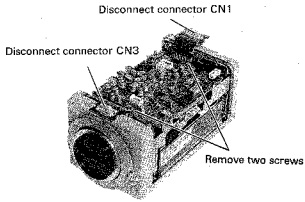


Fig. 2-3

- Tied Mounting Bracket by removed screw.

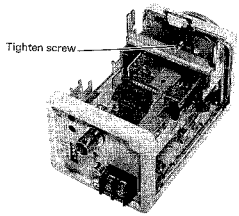


Fig. 2-4

- Place the Main board and connect the connectors CN3, and CN1 by Extension board as Fig. 2-5.

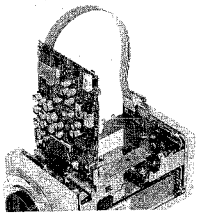


Fig. 2-5

3. CCD Assy Replacement Procedure

- Disassembling the camera while referring the 2. **Disassembling Procedure for Adjustment.**
- Remove one screw fixing the front chassis and remove the front chassis.

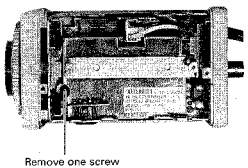


Fig. 3-1

- Remove one screw fixing ALC board, and disconnect CN1 from Sensor board.
- Remove ALC connector (CN2) from the front chassis then remove ALC board..

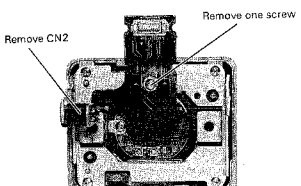


Fig. 3-2

- Remove four screws fixing the front chassis and remove the CCD image sensor assembly.

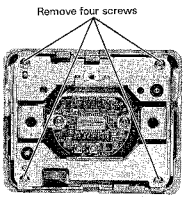


Fig. 3-3

4. Connection and Setting up for Adjustment

- Connect VIDEO OUT Connector on the rear of camera to colour video monitor through waveform monitor and vectorscope using coaxial cable.
- Terminate colour video monitor with 75 ohms.
- Place the logarithmic grayscale chart in front of the camera.

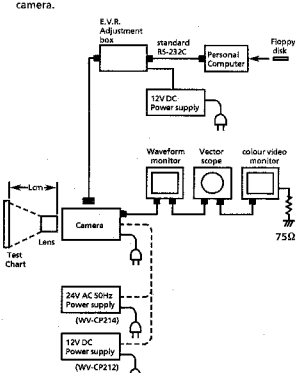


Fig. 4-1

5. Adjustment Procedure

- Refer to page 22 for the **Location of test points and adjusting controls.**
- Set the switches and controls position below.
  - · Sync Selection Switch : INT
  - · AGC ON/OFF Switch : ON
  - · Electronic Light Control / Automatic Light Control Selection Switch : ALC
  - · Detail Level Selection Switch : SHARP
  - · Automatic Tracing White Balance Control ON/OFF Switch : ON
  - · ATW Control : centre
  - · Video Level Control : centre

■ Adjustment Procedure-1

1. V.Sub Adjustment

Test Point :	**Pin4 of CN1**	**Sensor board**
Adjust :	**VR2 (V.Sub)**	**Sensor board**

- Check rank letter on CCD image sensor assembly.
- Connect digital voltmeter to pin4 of CN1 on Sensor board.
- Adjust VR2 so that voltage becomes as shown in table-1.

Rank	E	f	F	h	j	K	L	m	N	P
Voltage	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5
Rank	Q	R	S	T	U	V	W	X	Y	Z
Voltage	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5

Table-1

2. Reset Bias adjustment

Test Point :	**Pin12 of CN1 (CCD OUT)**	**Sensor board**
Adjust :	**VR1 (Reset Bias)**	**Sensor board**

- Check rank letter on CCD image sensor assembly.
- Connect digital volmeter to pin12 of CN1 on Sensor board.
- Adjust VR1 so taht voltage becomes as shown in table-2.

Rank	1	2	3	4	5	6	7
Voltage	1.0	1.5	2.0	2.5	3.0	3.5	4.0

Table-2

3. Timing Generator Vco Adjustment

Test Point :	**Source of Q1**	**Main board**
Adjust :	**L14**	**Main board**

- Connect digital Voltmeter to source of Q1 on Main board.
- Adjust L14 so that Voltage becomes +2.3V ± 0.2 V.

4. Line Lock Vco Adjustment

Test Point :	**Source of Q4**	**Main board**
Adjust :	**L33**	**Main board**

- Connect digital Voltmeter to source of Q4 on Main board.
- Adjust L33 so that Voltage becomes +2.2V ± 0.2V.

■ Adjustment Procedure-2 (E.V.R Adjustment)

- Connect E.V.R Adjustment box to CN3 on main board.
- Connect E.V.R Adjustment box to IBM-PC (Personal Computer) using standard RS-232C cable.
- Insert new disk containing DOS operating system and E.V.R Adjustment Program into IBM-PC and turns on power of IBM-PC.
- At the prompt, type **ADJ2E CP210E** and press **ENTER**, following initial menu for adjustment will be displayed.

```
   PANASONIC EVR ADJUSTMENT SYSTEM (C)MCI Co-    CCTV    PRODUCT:CP210
 ********************************MENU*********************** Page[1/1]
1.NO_FREQ.(PAL)                          13.1.5100K R_GAIN
2.SC_FREQ.(LL PAL)                       13.2.5100K B_GAIN
3.ALC LEVEL                              14.1.LL PHASE1
4.AGC OFF GAIN                           14.2.LL PHASE2
5.AGC LEVEL
6.ALC LEVEL
7.1.CARRIER Rch
7.2.CARRIER Bch
8.1.IH Delay Rch
8.2.IH Delay Bch
9.1.W/B 3200K Rch
9.2.W/B 3200K Bch
10.1.W/B 5100K Rch
10.2.W/B 5100K Bch
11.1.ATW OFFSET Rch
11.2.ATW OFFSET Bch
12.1.3200K R_GAIN
12.2.3200K B_GAIN
12.3.HUE
12.4.BURST PHASE
<CONTENTS>
< INSTRUCTION > PLEASE CHOOSE MENU DATA BY ARROW-KEY
   LOAD(F1)     QUIT(F2)     SAVE(F5)
```

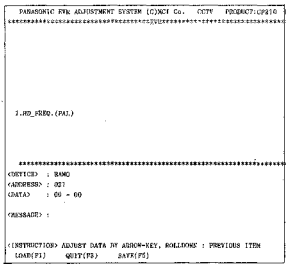
- Press **SAVE (F5)**. Then computer will ask you for the file name.
- Give appropriate file name to the computer. But do not use *CP210E.EVR* for your file name. This saving procedure is recommended to keep the current status of the camera.
- Press **LOAD (F1)** and type **CP210E.EVR**, and press **ENTER** for presetting adjustment of the camera.
- Press **ENTER** for starting adjustment.

NOTE :

- **EEPROM** mentioned in this adjustment procedure is IC21 on main board.
- **RAM** mentioned in this adjustment procedure is IC18 on main board.
- Some numbers of the following Adjustment Procedure-2 are missing due to matching the adjustment items with the EVR adjustment items.

1. Sub carrier frequency adjustment

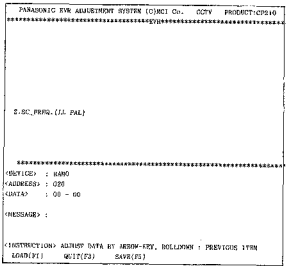
Test Point : Pin 4 of IC25 Main board
Adjust : RAM (21)



- Connect frequency counter to Pin 4 of IC25.
- Adjust data by **ARROW** keys so that sub carrier frequency beomes 4.433618 MHz ± 10 Hz.
- Press **ENTER** key.

2. Line lock sub carrier frequency adjustment (WV-CP210, WV-CP214 only)

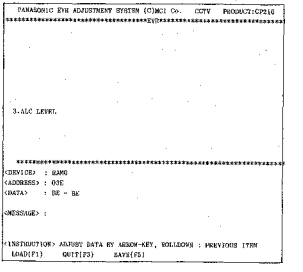
Test Point : Pin 4 of IC25 Main board
Adjust : RAM (20)



- Set the Sync Selection Switch to LL position.
- Connect frequency counter to Pin 4 of IC25.
- Adjust data by **ARROW** keys so that sub carrier frequency beomes 4.433618 MHz ± 10 Hz.
- Press **ENTER** key.
- Set the Sync Selection Switch to INT position.

3. ALC Level Adjustment

Test Point : Pin 1 (CDS OUT) of CN1 Main board
Adjust : RAM (3E)



- Connect oscilloscope to pin 1 (CDS OUT) of CN1 on Main board.
- Aim the camera at logarithmic gray scale chart.
- Adjust data by **ARROW** keys so that CDS output signal at pin 1 of CN1 becomes 500 mV ± 30 mV as shown in Fig. 5-1.

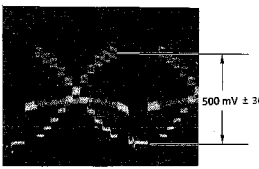


Fig. 5-1

- Press **ENTER** key.

4. AGC OFF gain adjustment

Test Point : VIDEO OUT connector Rear board
Adjust : RAM (35)

```
PANASONIC EVR ADJUSTMENT SYSTEM (C1HC1 Co.  CCTV  PRODUCT:CP210
*****************************EVR*****************************

4.AGC OFF GAIN

**************************************************************
<DEVICE>  : RAM0
<ADDRESS> : 035
<DATA>    : 45 - 45

<MESSAGE> :

<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
  LOAD(F1)      QUIT(F3)      SAVE(F5)
```

- Air the camera at logarithmic gray scale chart.
- Connect waveform monitor or terminate oscilloscope to VIDEO OUT connector on Rear board.
- Adjust data by **ARROW** keys so that signal level becomes 700 mV ± 50 mV (98 ± 7 IRE) as shown in Fig. 5-2.

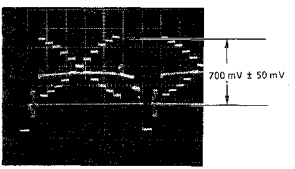


Fig. 5-2

- Press **ENTER** key.

5. AGC level adjustment

Test Point : VIDEO OUT connector Rear board
Adjust : RAM (30)

```
PANASONIC EVR ADJUSTMENT SYSTEM (C1HC1 Co.  CCTV  PRODUCT:CP210
*****************************EVR*****************************

5.AGC LEVEL

**************************************************************
<DEVICE>  : RAM0
<ADDRESS> : 030
<DATA>    : 3F - 3F

<MESSAGE> :

<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
  LOAD(F1)      QUIT(F3)      SAVE(F5)
```

- Air the camera at logarithmic gray scale chart.
- Connect waveform monitor or terminate oscilloscope to VIDEO OUT connector on Rear board.
- Adjust data by **ARROW** keys so that signal level becomes 700 mV ± 50 mV (98 ± 7 IRE) as shown in Fig. 5-3.

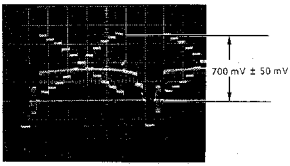
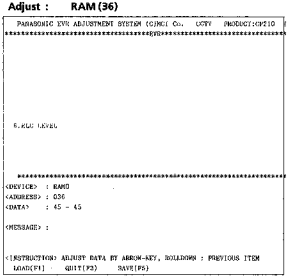


Fig. 5-3

- Press **ENTER** key.

6. ELC level adjustment

Test Point : Pin 1 (CDS OUT) of CN1 Main board
Adjust : RAM (36)



- Aim the camera at logarithmic gray scale chart.
- Connect oscilloscope to pin 1 (CDS OUT) of CN1.
- Adjust data by **ARROW** keys so that signal level becomes 500 mV ± 30 mV as shown in Fig. 5-4.

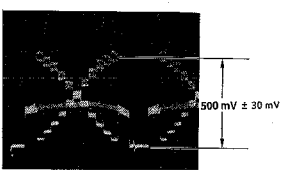


Fig. 5-4

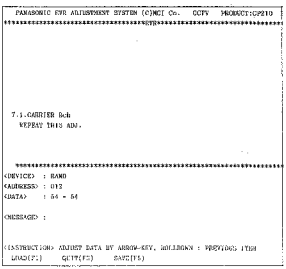
- Press **ENTER** key.

7. R. B carrier balance adjustment

Test Point : VIDEO OUT connector Rear board
Adjust : RAM (12)
RAM (13)

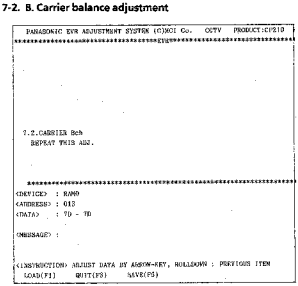
- Set the gain of vectorscope to maximum.

7-1. R. Carrier balance adjustment



- Cap on the lens.
- Adjust data by **ARROW** keys so that vector positions at the centre of vectorscope.
- Press **ENTER** key.

7-2. B. Carrier balance adjustment



- Adjust data by **ARROW** keys so that vector positions at the centre of vectorscope.
- Press **ENTER** key.
- If the vector does not position at the centre of vectorscope, press **PG DN** key twice to return to 7-1, and repeat above procedure until vector positions at the centre of vectorscope as shown in Fig. 5-5.

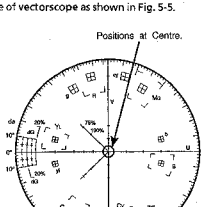


Fig. 5-5

- Remove the cap on the lens.

8. 1H delay adjustment

Test Point : VIDEO OUT connector Rear board
Adjust : RAM (10)
RAM (11)

8-1. R .1H delay adjustment

```
PANASONIC BVR ADJUSTMENT SYSTEM (C)MCI Co.   CCTV   PRODUCT:CP210
*****************************[Vbs]*****************************




 8.1.1H Delay Rch




 ***********************************************************
<DEVICE>  : RAM0
<ADDRESS> : 010
<DATA>    : 5B ~ 5B

<MESSAGE> :


<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
  LOAD[F1]      QUIT[F3]      SAVE[F5]
```

- Aim the camera at colour chip chart.
- Adjust data by **ARROW** keys so that vector positions coincident on vectorscope.
- Press **ENTER** key.

8-2. B. 1H delay adjustment

```
PANASONIC BVR ADJUSTMENT SYSTEM (C)MCI Co.   CCTV   PRODUCT:CP210
*****************************[Vbs]*****************************




 8.2.1H Delay Bch




 ***********************************************************
<DEVICE>  : RAM0
<ADDRESS> : 011
<DATA>    : 5B ~ 5B

<MESSAGE> :


<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
  LOAD[F1]      QUIT[F3]      SAVE[F5]
```

- Adjust data by **ARROW** keys so that vector positions coincident on vectorscope.
- Press **ENTER** key.
- If the vector does not position coincident on vectorscope, press **PG DN** key twice to return to 8-1, and repeat above procedure until vector positions coincident on vectorscope as shown in Fig. 5-6.

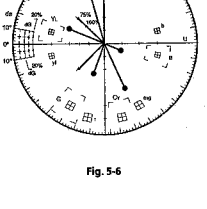


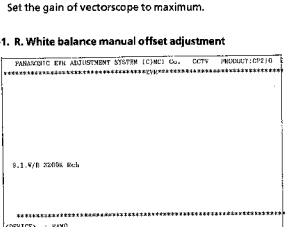
Fig. 5-6

9. White balance manual offset adjustment (3200°K)

Test point : VIDEO OUT connector Rear board
Adjust : RAM (8B)
RAM (8E)

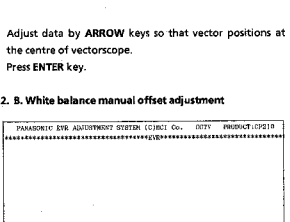
- Aim the camera at white chart.
- Set the gain of vectorscope to maximum.

9-1. R. White balance manual offset adjustment



- Adjust data by **ARROW** keys so that vector positions at the centre of vectorscope.
- Press **ENTER** key.

9-2. B. White balance manual offset adjustment



- Adjust data by **ARROW** keys so that vector positions at the centre of vectorscope.
- Press **ENTER** key.
- If the vector does not position at the centre of vectorscope, press **PG DN** key twice to return to 9-1, and repeat above procedure until vector positions at the centre of vectorscope as shown in Fig. 5-7.

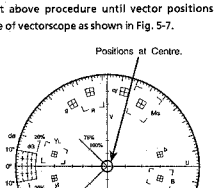


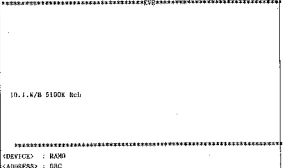
Fig. 5-7

10. White balance manual offset adjustment (5100°K)

Test point : VIDEO OUT connector Rear board
Adjust : RAM (8C)
RAM (8F)

- Set CC filter (C12) on the lens to convert from 3200°K to 5100°K.
- Aim the camera at white chart.
- Set the gain of vectorscope to maximum.

10-1. R. White balance manual offset adjustment



- Adjust data by **ARROW** keys so that vector positions at the centre of vectorscope.
- Press **ENTER** key.

10-2. B. White balance manual offset adjustment

```
  PANASONIC EVR ADJUSTMENT SYSTEM (C)MCI Co.    CCTV    PRODUCT:CP210
*****************************EVR*****************************

  10.2.W/B S100K Bch

*****************************************************************
<DEVICE>  : RAM0
<ADDRESS> : 0BF
<DATA>    : 43 - 43

<MESSAGE> :

<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
  LOAD(F1)      QUIT(F3)      SAVE(F5)
```

- Adjust data by **ARROW** keys so that vector positions at the centre of vectorscope.
- Press **ENTER** key.
- If the vector does not position at the centre of vectorscope, press **PG DN** key twice to return to 10-1, and repeat above procedure until vector positions at the centre of vectorscope as shown in Fig. 5-8.

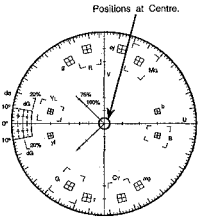


Fig. 5-8

- Remove CC filter (C12) from in front of lens.

11. ATW offset adjustment

Test point : VIDEO OUT connector Rear board
Adjust : RAM (AA)
RAM (AB)

- Aim the camera at white chart.
- Set the gain of vectorscope to maximum.

11-1. R. ATW offset adjustment

```
  PANASONIC EVR ADJUSTMENT SYSTEM (C)MCI Co.    CCTV    PRODUCT:CP210
*****************************EVR*****************************

  11.1.ATW OFFSET Rch

*****************************************************************
<DEVICE>  : RAM0
<ADDRESS> : 0AA
<DATA>    : 51 - 51

<MESSAGE> :

<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
  LOAD(F1)      QUIT(F3)      SAVE(F5)
```

- Adjust data by **ARROW** keys so that vector positions at the centre of vectorscope.
- Press **ENTER** key.

11-2. B. ATW offset adjustment

```
  PANASONIC EVR ADJUSTMENT SYSTEM (C)MCI Co.    CCTV    PRODUCT:CP210
*****************************EVR*****************************

  11.2.ATW OFFSET Bch

*****************************************************************
<DEVICE>  : RAM0
<ADDRESS> : 0AB
<DATA>    : 55 - 55

<MESSAGE> :

<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
  LOAD(F1)      QUIT(F3)      SAVE(F5)
```

- Adjust data by **ARROW** keys so that vector positions at the centre of vectorscope.
- Press **ENTER** key.
- If the vector does not position at the centre of vectorscope, press **PG DN** key twice to return to 11-1, and repeat above procedure until vector positions at the centre of vectorscope as shown in Fig. 5-9.

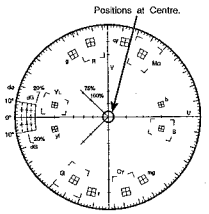


Fig. 5-9

12. White balance adjustment (3200°K)

Test Point : VIDEO OUT connector Rear board
Adjust : **RAM (A1)**
RAM (A4)
RAM (25)
RAM (26)

- Aim the camera at colour chip chart.
- Set the gain of vectorscope to 75% position.

12-1. R. Gain adjustment

```
  PANASONIC KVR ADJUSTMENT SYSTEM (C)NCI Co.   CCTV   PRODUCT:CP210
*****************************KVR*****************************

  12.1.3200K R_GAIN

 ***************************************************************
<DEVICE>  : RAM0
<ADDRESS> : 0A1
<DATA>    : 6C - 6C

<MESSAGE> :

<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
  LOAD(F1)     QUIT(F3)     SAVE(F5)
```

- Adjust data by **ARROW** keys so that red gain becomes 200 ± 5% (Burst=100%).
- Press **ENTER** key.

12-2. B. Gain adjustment

```
  PANASONIC KVR ADJUSTMENT SYSTEM (C)NCI Co.   CCTV   PRODUCT:CP210
*****************************KVR*****************************

  12.2.3200K B_GAIN

 ***************************************************************
<DEVICE>  : RAM0
<ADDRESS> : 0A4
<DATA>    : 6A - 6A

<MESSAGE> :

<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
  LOAD(F1)     QUIT(F3)     SAVE(F5)
```

- Adjust data by **ARROW** keys so that yellow gain becomes 100 ± 5% (Burst=100%).
- Press **ENTER** key.

12-3. Chroma phase adjustment

```
  PANASONIC KVR ADJUSTMENT SYSTEM (C)NCI Co.   CCTV   PRODUCT:CP210
*****************************KVR*****************************

  12.3.0UR

 ***************************************************************
<DEVICE>  : RAM0
<ADDRESS> : 025
<DATA>    : 97 - 97

<MESSAGE> :

<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
  LOAD(F1)     QUIT(F3)     SAVE(F5)
```

- Adjust data by **ARROW** keys so that both red vectors become coincident.
- Press **ENTER** key.
- If the chrominance phase and gain should not be adjusted to proper position, press **PG DN** key 3 times to return to 12-1, and repeat above procedure until they are adjusted to proper position as shown in table-1.

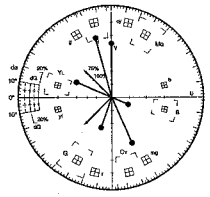


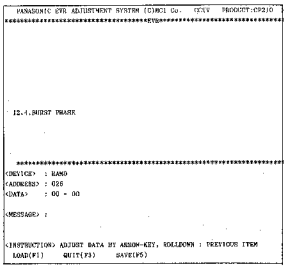
Fig. 5-10

	Red	Yellow
Phase	104 ± 2°	165 ± 5°
Gain	200 ± 5%	100 ± 5%

Table-1

12-4. Burst phase adjustment

Test point : VIDEO OUT connector Rear board
Adjust : RAM (26)



- Set the mode switch of vectorscope to "NTSC" mode.
- Adjust data by ARROW keys so that burst phase becomes 135° as shown Fig. 5-11.
- Change the mode switch of vectorscope from "NTSC" to "PAL" mode.
- Confirm the burst phase should be with in 90° as shown in Fig. 5-11.

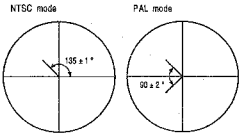


Fig. 5-11

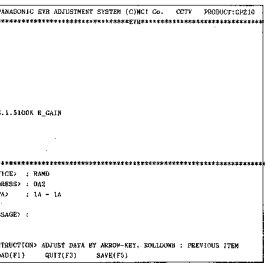
- Press ENTER key.

13. White balance adjustment (5100°K)

Test point : VIDEO OUT connector Rear board
Adjust : RAM (A2)
RAM (A5)

- Aim the camera at colour chip chart.
- Set CC filter (C12) on the lens to convert from 3200°K to 5100°K.

13-1. R. Gain adjustment



- Adjust data by **ARROW keys** so that red gain becomes 200 ± 10% (Burst = 100%).
- Press **ENTER key**.

13-2. B. Gain adjustment

```
PANASONIC EVR ADJUSTMENT SYSTEM (C)MCI Co.   CCTV   PRODUCT:CP210
*****************************************SYS*****************************

13.2.5100K B_GAIN

*****************************************************************
<DEVICE>  : RAM0
<ADDRESS> : 0A5
<DATA>    : 34 - 36

<MESSAGE> :

<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
 LOAD(F1)     QUIT(F3)     SAVE(F5)
```

- Adjust data by ARROW keys so that yellow gain becomes 100 ± 5% (Burst=100%).
- Press **ENTER** key.
- If the chrominance gain should not be adjusted to proper position, press **PG DN** key twice to return to 13-1, and repeat above procedure until they are adjusted to proper position.

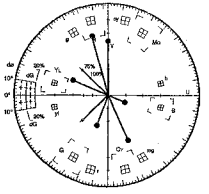


Fig. 5-12

- Remove CC filter (C12) from in front of lens.

15. Line Lock V. phase adjustment (WV-CP210/214 only)

Test Point :	**VIDEO OUT connector**	**Rear board**
	AC Input terminal	**Power board**
Adjust :	**RAM (27)**	
	RAM (24)	

15-1. LL V Phase 1

```
PANASONIC EVR ADJUSTMENT SYSTEM (C)MCI Co.   CCTV   PRODUCT:CP210
*****************************************SYS*****************************

15.1.LL PHASE1

*****************************************************************
<DEVICE>  : RAM0
<ADDRESS> : 027
<DATA>    : 00 - 00

<MESSAGE> :

<INSTRUCTION> ADJUST DATA BY ARROW-KEY, ROLLDOWN : PREVIOUS ITEM
 LOAD(F1)     QUIT(F3)     SAVE(F5)
```

- Connect 2 probes of oscilloscope to VIDEO OUT connector on Rear board and AC input terminal on power board.
- Set the oscilloscope to V rate.
- Adjust data by **ARROW** keys so that decay point of V sync signal delays 2H ± 1H from zero cross point of AC power source as shown in Fig. 5-13.

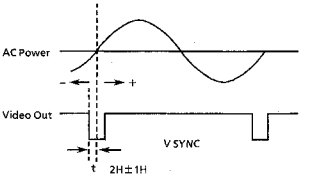
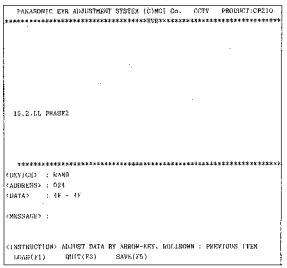


Fig. 5-13

- Press **ENTER** key.

15-2. LL V Phase 2

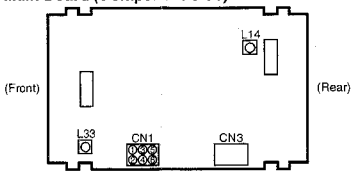


- Connect 2 probes of oscilloscope to VIDEO OUT connector on Rear board and AC input terminal on power board.
- Set the oscilloscipe to V rate.
- Adjust data by **ARROW** keys so that decay point of V sync signal delays 2H ± 1H from zero cross point of AC power source as shown in Fig. 5-13.
- Press **ENTER** key.

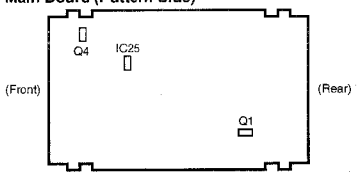
- After finishing adjustment, press **QUIT (F3)**.
- Press **N** and **ENTER** to finish.
- Disconnect cable from CN3 on Main board.

LOCATION OF TEST POINTS AND ADJUSTING CONTROLS

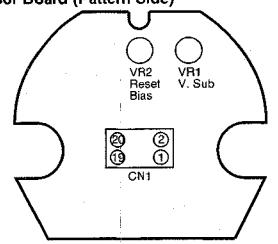
Main Board (Component Side)



Main Board (Pattern Side)



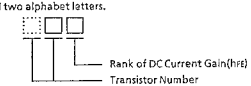
Sensor Board (Pattern Side)



CHIP COMPONENTS

1. Chip Transistor

The transistor number is indicated on the top surface of the chip transistor using two alphabet letters or one numerical and two alphabet letters.



Transistor Number

(Chip Transistor)

Letter	Transister No.	Letter	Transister No.
A	2SB709	X	2SD602A
B	2SB709A	Y	2SD601
C	2SB710	Z	2SD601A
D	2SB710A	1A	2SB799
E	2SA1022	1B	2SB814
F	2SA1034	1C	2SB902
H	2SA1035	1F	2SK321
I	2SB792	1K	2SK316
K	2SC2778	1L	2SK247
P	2SD814	1M	2SJ84
Q	2SD813	1N	2SK199
R	2SC2480	1O	2SK198
S	2SC2405	1T	2SC3077
T	2SC2406	1X	2SC2845
U	2SC2404	1Z	2SD1030
V	2SC2295	2B	2SK374
W	2SD602	2C	2SK116

(Small Chip Transistor)

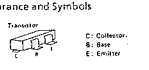
Letter	Transister No.
A	2SB1218
U	2SC3931
W	2SD1820
Y	2SD1819
E3	2SA1226
OS	2SB1219
UC	2SA1532
YU	2SC3938

(Pair Transistor)

Letter	Transister No.
5C	XN4601
5N	XN6501
5O	XN6401

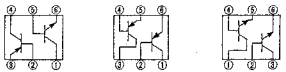
Example : WQ → 2SD602-Q
YQ → 2SD601-Q
1BS → 2SB814-S

Appearance and Symbols



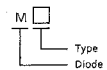
	1	2	3
Except 2SK199	Drain	Source	Gate
2SK199	Gate	Drain	Source

XN4601 XN6401 XN6501



2. Chip Diode

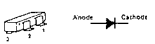
The diode number is indicated on the top surface of the chip diode using Two alphabet letters.



Diode Number

Letter	Diode No.	Letter	Diode No.
MA	MA151A	MI	MA152K
MB	MA152A	MK	MA28W-B
MC	MA153	ML	MA28T-A
MD	MA28-A	MN	MA151WA
ME	MA28-B	MO	MA152WA
MF	MA28W-A	MT	MA151WK
MH	MA151K	MU	MA152WK

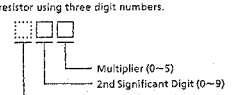
Appearance and Symbols



	1	2	3
MA28/MA28W/MA28T	-	Anode	Cathode
MA151K/MA152K	-	Anode	Cathode
MA151A/MA152A	-	Cathode	Anode
MA151WK/MA152WK	Anode	Anode	Cathode
MA151WA/MA152WA	Cathode	Cathode	Anode
MA153	Cathode	Anode	Common

3. Chip Resistor

The resistor value is indicated on the bottom surface of the chip resistor using three digit numbers.



Example : 330 → 33 x 10^0 = 33 ohms
561 → 56 x 10^1 = 560 ohms
123 → 12 x 10^3 = 12 ohms

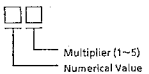
Note : Zero ohm resistor (jumper chip) is colored red or green.

4. Chip Capacitor

The capacitive value of replacement chip capacitors is indicated on the bottom surface. Original parts do not have value indication.
If the capacitive value is less than 100 pF, the value will be indicated by one or two digit number expressing the capacity directly in pF.

Example : 0.5 → 0.5 pF 2.5 → 2.5 pF
75 → 0.75 pF 33 → 33 pF
1 → 1 pF 82 → 82 pF

If the capacitive value is 100 pF or greater, the value will be indicated by an alpha-numeric code. The letter precedes the number and expresses a numerical value to be multiplied by the number which follows.



Numerical Value

Letter	Value	Letter	Value
A	10	N	33
B	11	P	36
C	12	Q	39
D	13	R	43
E	15	S	47
F	16	T	51
G	18	U	56
H	20	V	62
J	22	W	68
K	24	X	75
L	27	Y	82
M	30	Z	91

*Letters I and O are not used

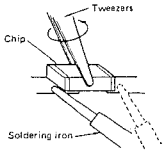
Example : A1 → 10 x 10^1 = 100 pF
N2 → 33 x 10^2 = 3300 pF
S3 → 47 x 10^3 = 47000 pF

5. Precautions in replacing the chip component

1. Make sure that the unit is turned OFF when replacing the chip.
2. Use tweezers to prevent any damage to the chip surface.
3. Do not re-use the chips after removal.
4. Do not rub the electrode of chips.
5. Do not subject the chips to excessive stress.
6. It is recommended that a pencil-type soldering iron to be used.
7. The solder whose diameter is less than 0.5 mm is recommended.
8. Do not heat the chip beyond 3 seconds.
9. Maintain temperature control under 260°C (500°F) when soldering.

5-1 Removal (Transistor, Diode, Resistor and Capacitor)

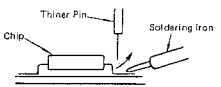
1. Add the solder to both ends of the chip (three leads for chip transistor).
2. While attaching the soldering iron to both ends of the chip (three leads for chip transistor) as shown below, remove the chip by turning it with tweezers.
   Note : Be careful not to damage other chips.



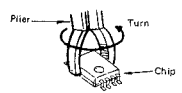
5-2 Removal (IC)

1. Add the solder wick and solder iron to each lead of the IC and remove solder.

2. Add the solder iron to each lead of the IC and left each lead of the IC using thiner pin.

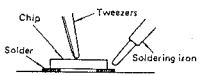


3. Remove IC turning it with plier.

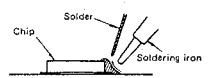


5-3 Mounting

1. Place the solder thinly on the chip mounting foil.
2. Solder the chip temporarily while holding the chip with the tweezers.

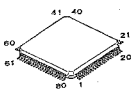


3. Solder both ends of chip (three leads for chip transistor).

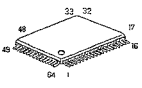


APPEARANCE OF IC, TRANSISTOR AND DIODE

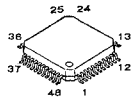
AN1245NFHP
MN73093



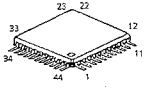
YWCXD2404R



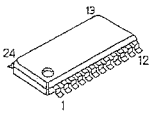
MN3111H



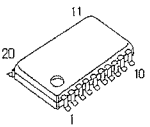
YWPD75064501



AN2458SH



YWC5020074E1
YWPC5020G070
YWMB88346BEF



MN3860SA
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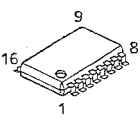
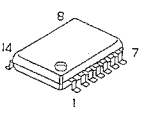


YWTC74VC04F
YWLM324DBEL



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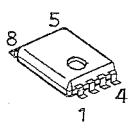
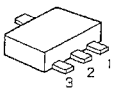
AN2018S
YWNJM3416
YWBR93LC46

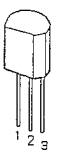


YWTC7S04F
YWSC14S66F
YWSC14S69F

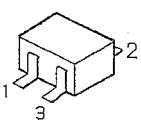
YWM5237ML



YWTA76431S



MN13821R



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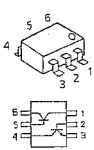

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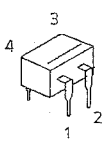

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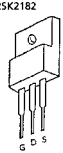
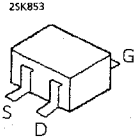
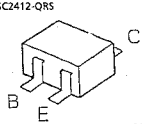
2SK2182



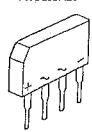
2SK662-PQR
2SK853



2SA1774 2SC4617
2SB710-QRS 2SC4619
2SB766A-QR 2SC4627
2SC2412-QRS

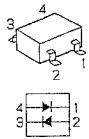


S1VB60
YWD25BA20



APPEARANCE OF IC, TRANSISTOR AND DIODE

MA726



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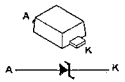
MA8150



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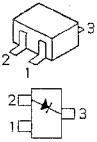

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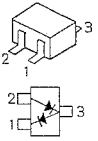

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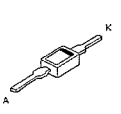

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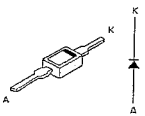
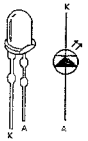


LN28RPPN



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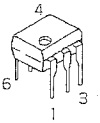
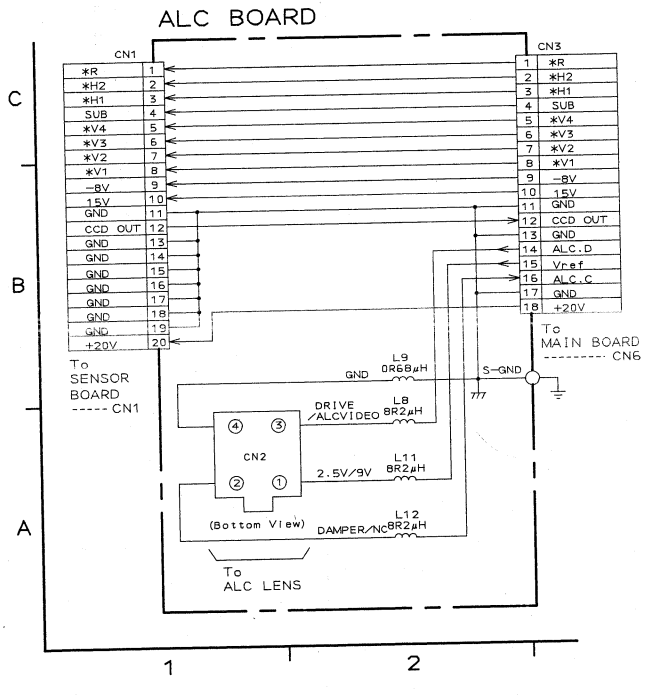
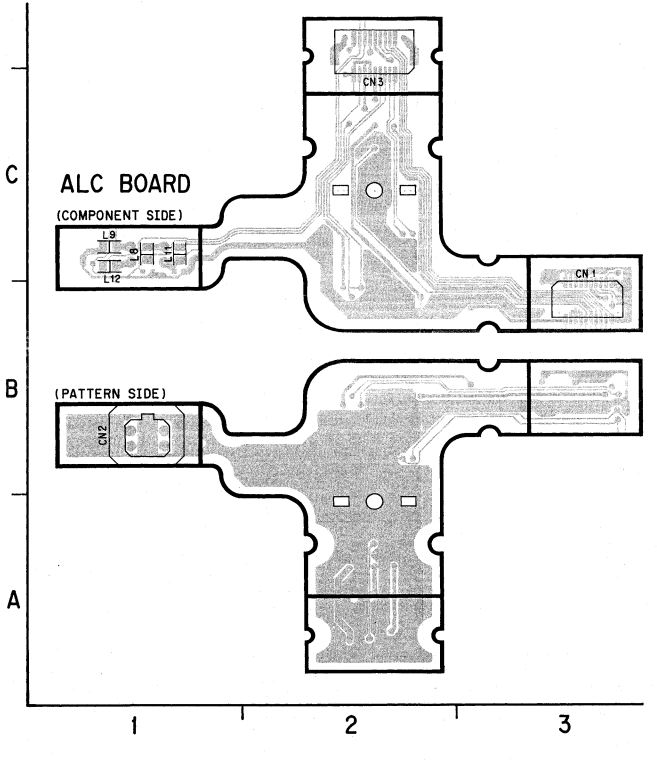


SCHEMATIC DIAGRAM OF ALC BOARD



CONDUCTOR VIEW OF ALC BOARD

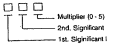


<Index>

SENSOR BOARD

IC1	B1
Q1	A3
Q2	D2
D1	D2
D2	C2

Note: The value indicated in schem should be read as follows:



<Example>

For Resistor:

330 → 33 x 10^0 = 33Ω
561 → 56 x 10^1 = 560Ω
123 → 12 x 10^3 = 12kΩ
0R00 = 0 Ω

For Capacitor:

820 → 82 x 10^0 = 82pF
102 → 10 x 10^2 = 1000pF
104 → 10 x 10^4 = 100000pF

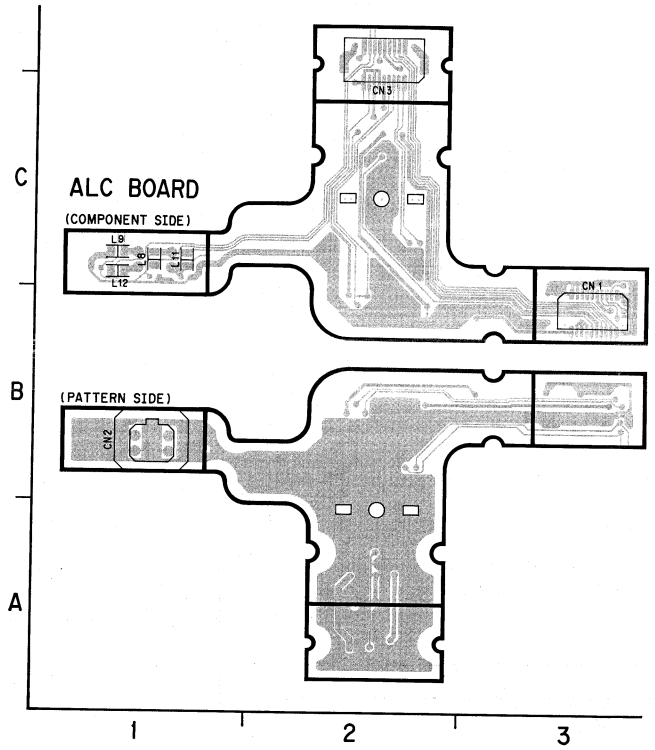
The suffix attached to each type of capacitor

<Index>

SENSOR BOARD

IC1	A3
Q1	B2
Q2	A1
D1	A1
D2	A2

CONDUCTOR VIEW OF ALC BOARD



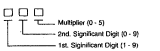
SCHMATIC DIAGRAM OF SENSOR BOARD

<Index>

SENSOR BOARD

IC1	B1
Q1	A3
Q2	D2
D1	D2
D2	C2

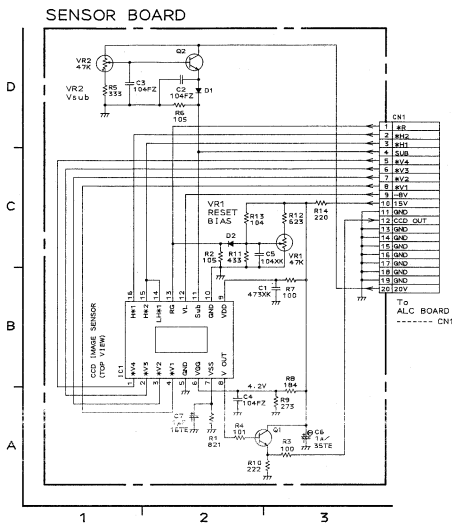
Note: The value indicated in schematic diagram should be read as follows:



<Example>
For Resistor:
330 → 33 x 10^0 = 33Ω
561 → 56 x 10^1 = 560Ω
123 → 12 x 10^3 = 12kΩ
0R00 = 0 Ω

For Capacitor:
820 → 82 x 10^0 = 82pF
102 → 10 x 10^2 = 1000pF = 0.001μF
104 → 10 x 10^4 = 100000pF = 0.1μF

The suffix attached to capacitance indicates a type of capacitor.

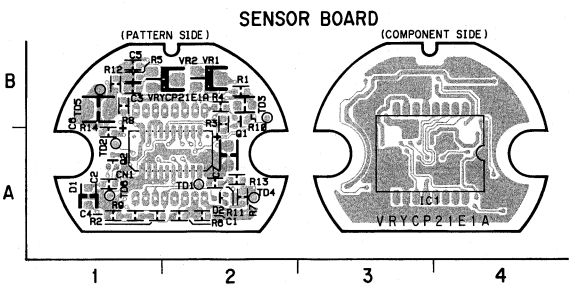


CONDUCTOR VIEW OF SENSOR BOARD

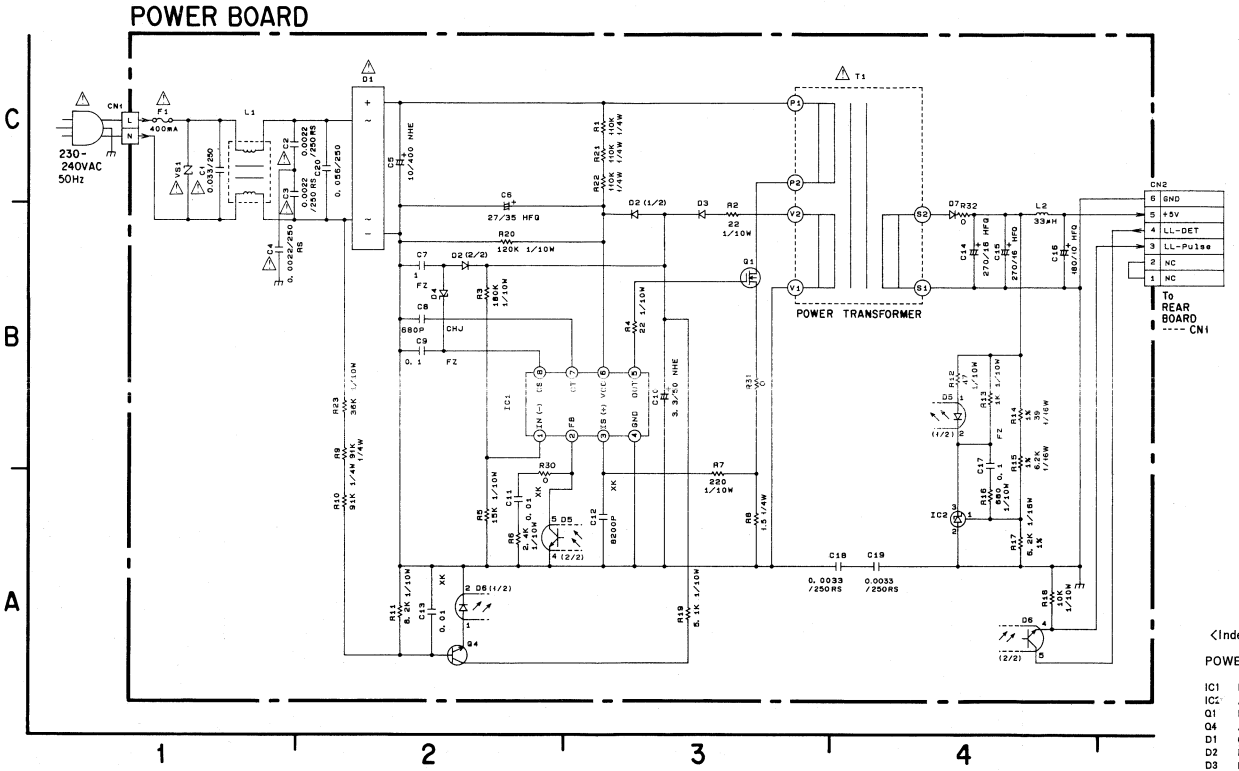
<Index>

SENSOR BOARD

IC1	A3
Q1	B2
Q2	A1
D1	A1
D2	A2



SCHEMATIC DIAGRAM OF POWER BOARD (WV-CP210)



PRODUCT SAFETY NOTICE
COMPONENT IDENTIFIED WITH THE "⚠" MARK HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN SERVICING ANY OF THESE COMPONENTS, IT IS ESSENTIAL THAT ONLY MANUFACTURE'S SPECIFIED PARTS BE USED.

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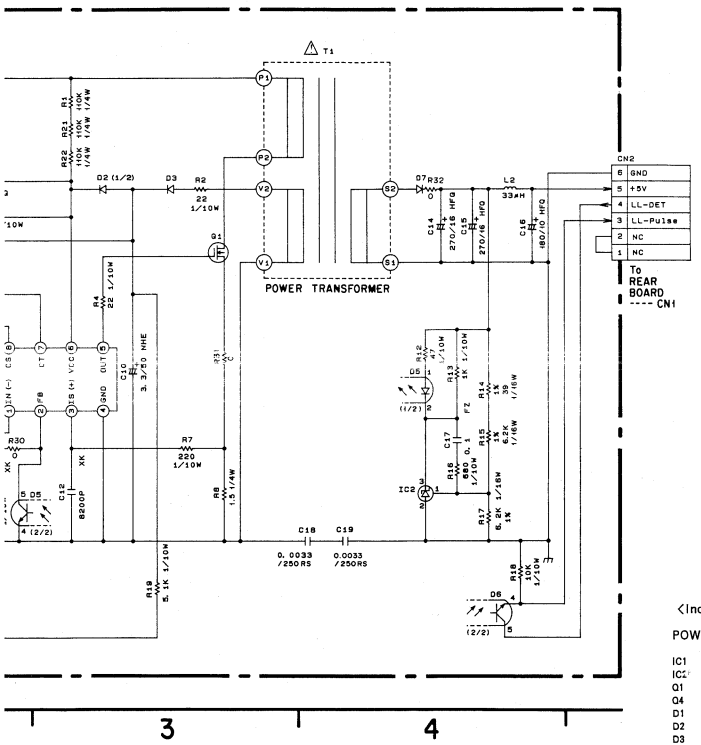
POWER BOARD

IC1	B2
IC2	A4
Q1	B3
Q4	A2
D1	C2
D2	B2,B3
D3	B3
D4	B2
D5	A2,B4
D6	A2,A4
D7	B4

M OF POWER BOARD (WV-CP210)



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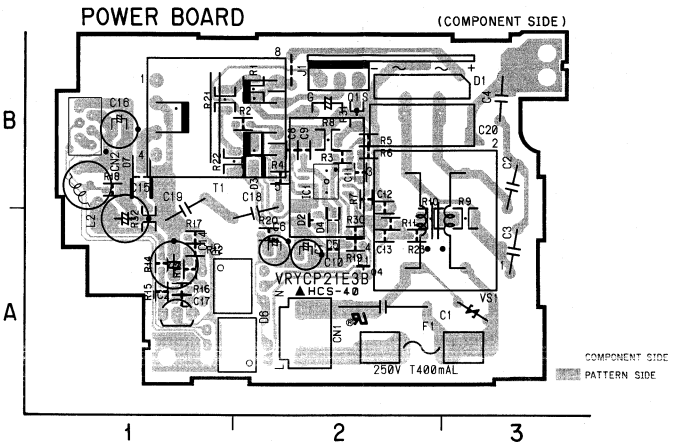
POWER BOARD

IC1	B2
IC2	A4
Q1	B3
Q4	A2
D1	C2
D2	B2,B3
D3	B3
D4	B2
D5	A2,B4
D6	A2,A4
D7	B4

CONDUCTOR VIEW OF POWER BOARD (WV-CP210)



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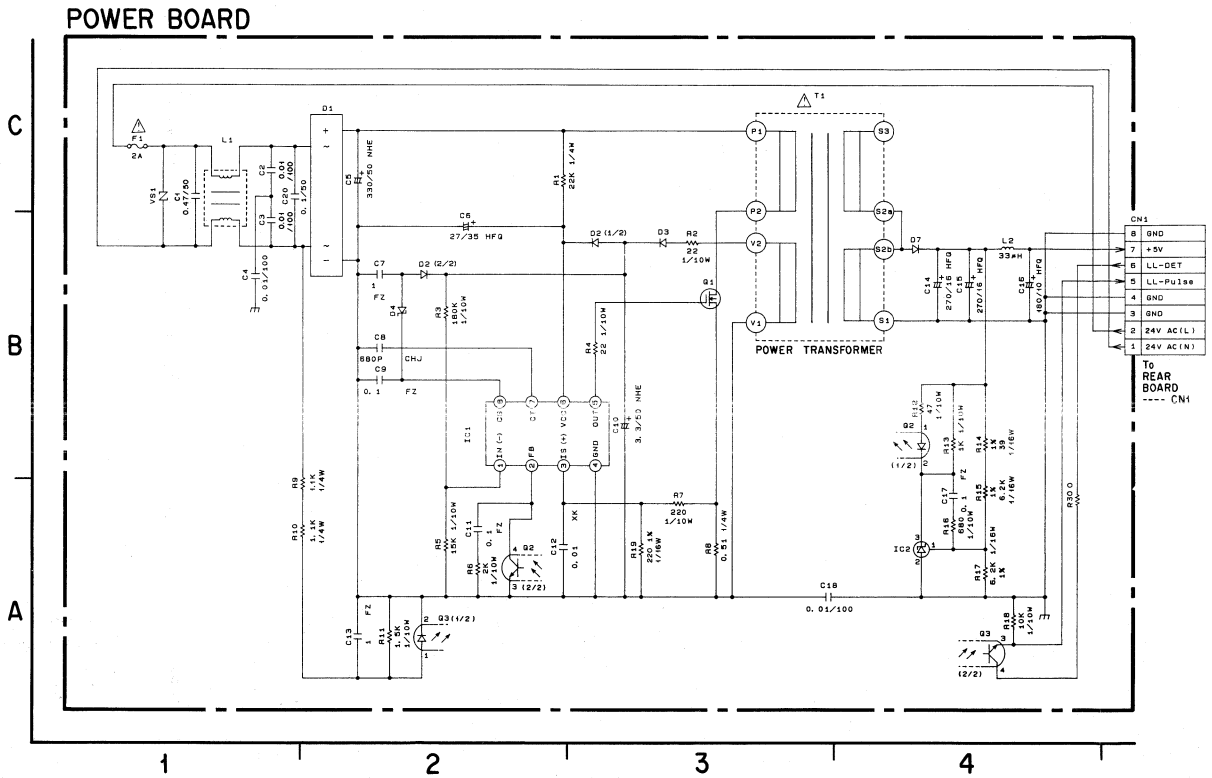
POWER BOARD

IC1	B2
IC2	A1
Q1	B2
Q4	A2
D1	B3
D2	A2
D3	B2
D4	A2
D5	A1
D6	A2
D7	B1

SCHEMATIC DIAGRAM OF POWER BOARD (WV-CP214)



<Index>

POWER BOARD

IC1	B2
IC2	A4
Q1	B3
Q2	A2,B4
Q3	A2,A4
D1	C2
D2	B2,B3
D3	B3
D4	B2
D7	B4

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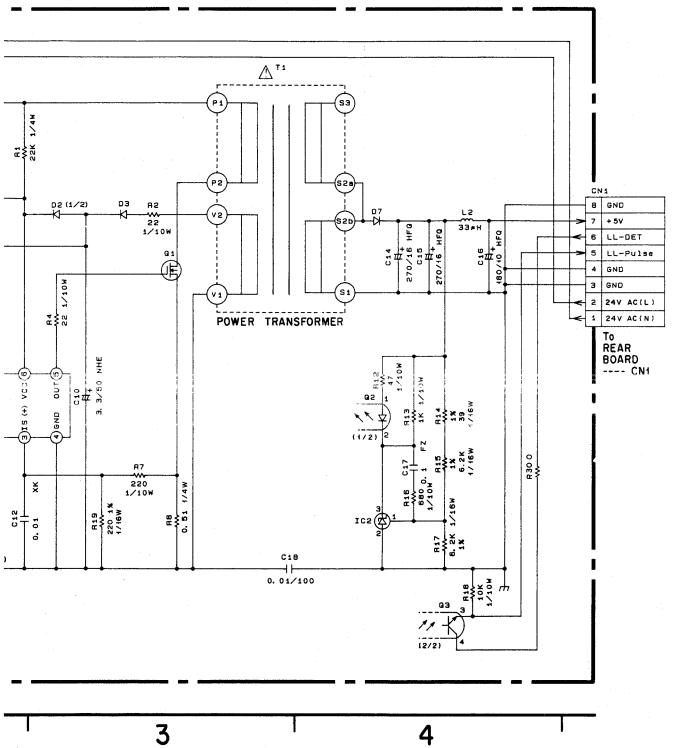
OF POWER BOARD (WV-CP214)



PRODUCT SAFETY NOTICE
COMPONENT IDENTIFIED WITH THE "⚠" MARK HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN SERVICING ANY OF THESE COMPONENTS, IT IS ESSENTIAL THAT ONLY MANUFACTURE'S SPECIFIED PARTS BE USED.

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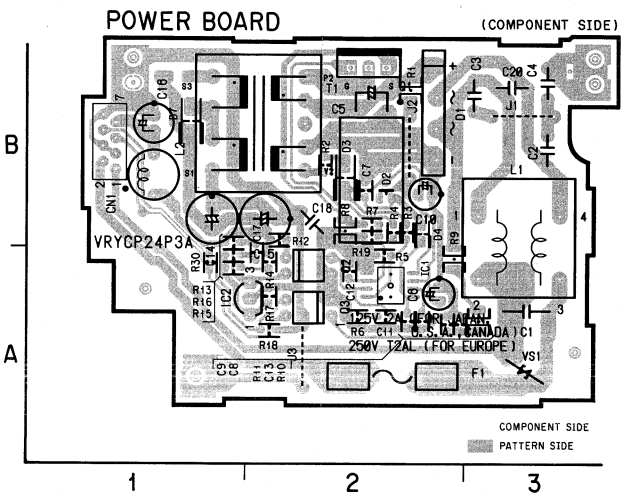
POWER BOARD

IC1	B2
IC2	A4
Q1	B3
Q2	A2,B4
Q3	A2,A4
D1	C2
D2	B2,B3
D3	B3
D4	B2
D7	B4

CONDUCTOR VIEW OF POWER BOARD (WV-CP214)



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POWER BOARD

IC1	A2
IC2	A1
Q1	B2
Q2	A2
Q3	A2
D1	B2
D2	B2
D3	B2
D4	B2
D7	B1

SCHEMATIC DIAGRAM OF REAR BOARD (WV-CP210)

CONDUCTOR V

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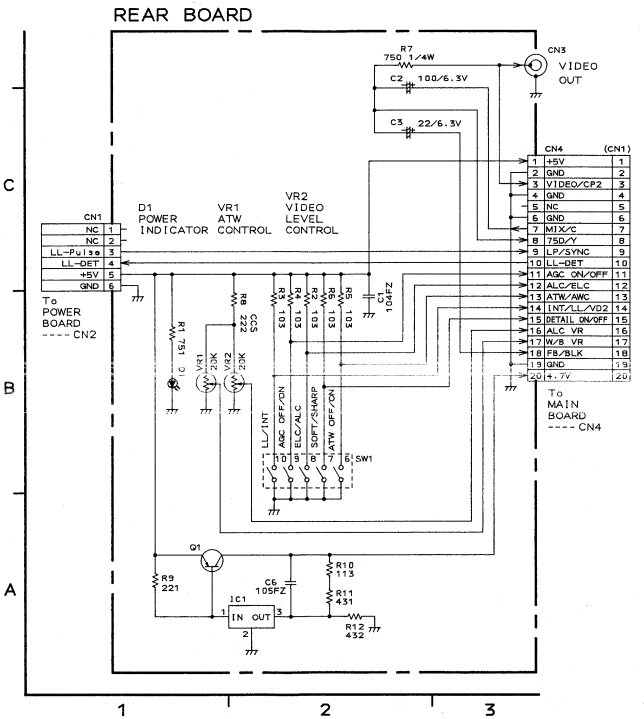
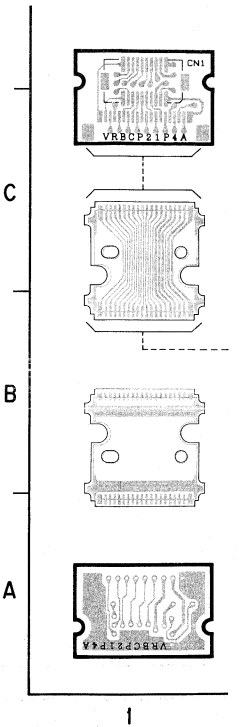
REAR BOARD

IC1	A2
Q1	A1
D1	B1





Note: The value indicated in schematic diagram should be read as follows:

<Example>

For Resistor:

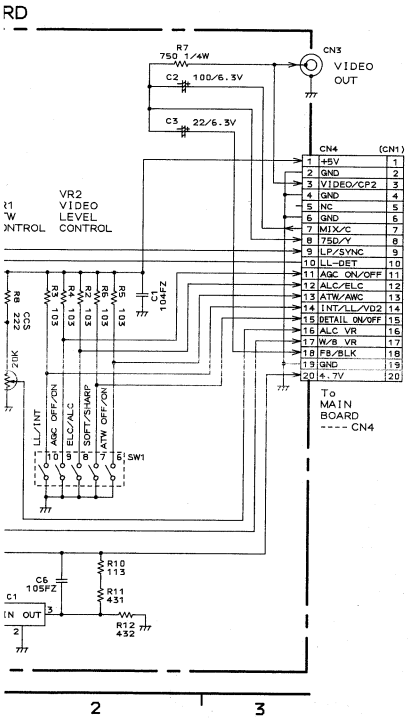
330 ⟶ 33 x 10^0 = 33Ω
561 ⟶ 56 x 10^1 = 560Ω
123 ⟶ 12 x 10^3 = 12kΩ
0R00 = 0 Ω

For Capacitor:

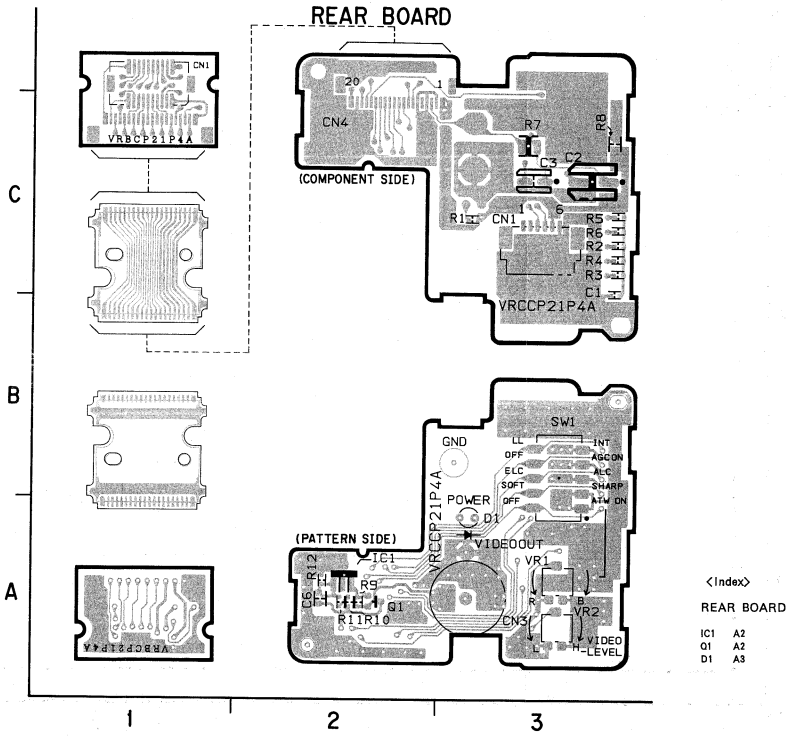
820 ⟶ 82 x 10^0 = 82pF
102 ⟶ 10 x 10^2 = 1000pF = 0.001μF
104 ⟶ 10 x 10^4 = 100000pF = 0.1μF

The suffix attached to capacitance indicates a type of capacitor.

)F REAR BOARD (WV-CP210)



CONDUCTOR VIEW OF REAR BOARD (WV-CP210)



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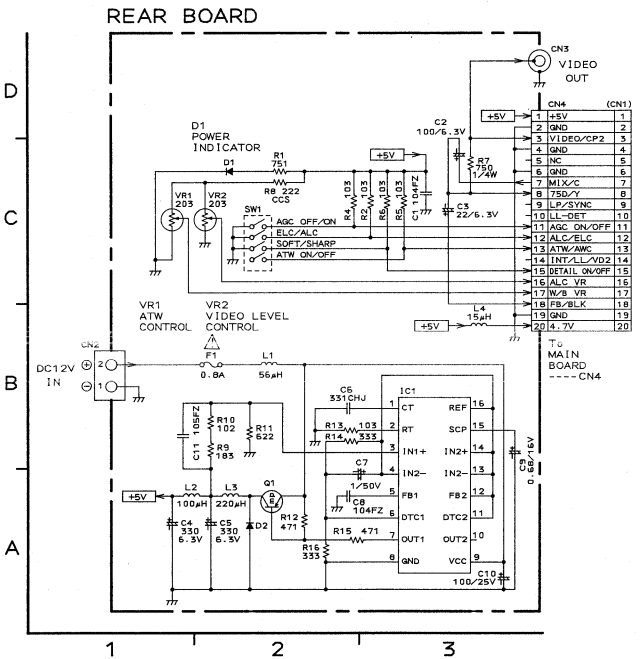
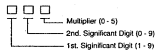
REAR BOARD

IC1	A2
Q1	A2
D1	A3

SCHEMATIC DIAGRAM OF REAR BOARD (WV-CP212)



Note: The value indicated in schematic diagram should be read as follows:



<Example>

For Resistor:

330 ⟶ 33 x 10^0 = 33Ω
561 ⟶ 56 x 10^1 = 560Ω
123 ⟶ 12 x 10^3 = 12kΩ
0R00 = 0 Ω

For Capacitor:

820 ⟶ 82 x 10^0 = 82pF
102 ⟶ 10 x 10^2 = 1000pF = 0.001μF
104 ⟶ 10 x 10^4 = 100000pF = 0.1μF

The sullix attached to capacitance indicates a type of capacitor.

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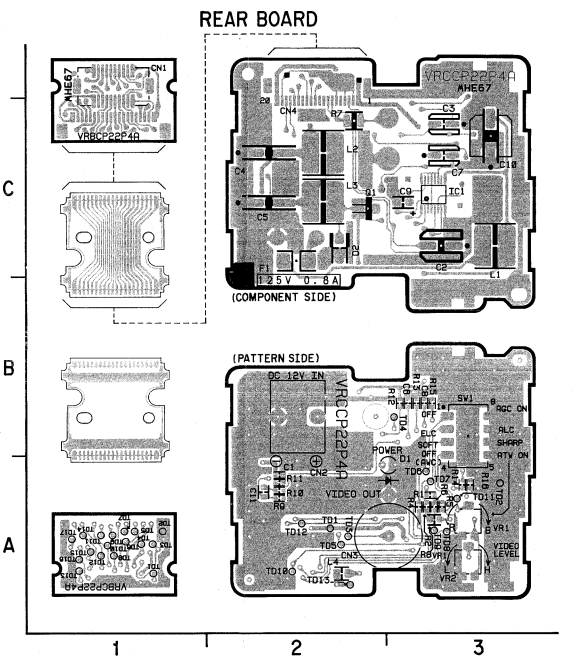
REAR BOARD

IC1	B3
Q1	A2
D1	C2
D2	A2

CONDUCTOR VIEW OF REAR BOARD (WV-CP212)



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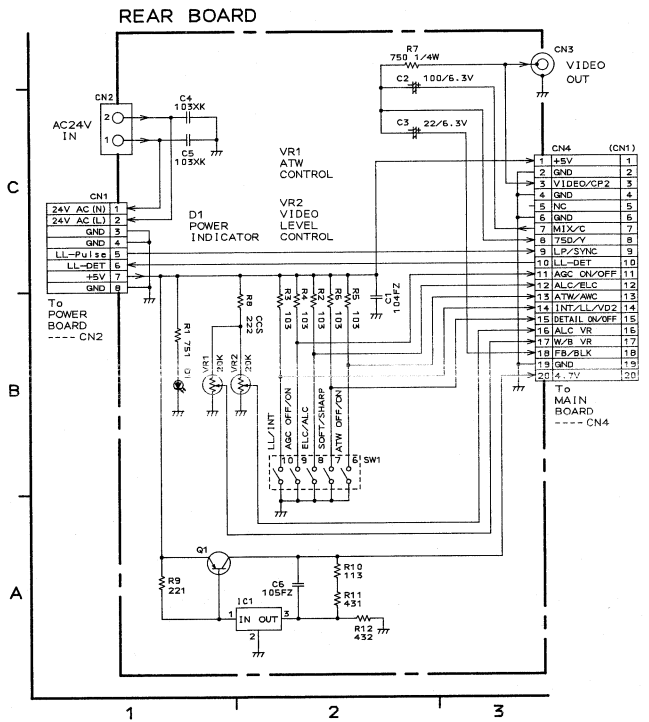
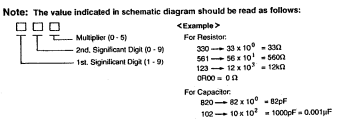
REAR BOARD

IC1	C3
Q1	C2
D1	A3
D2	C2

SCHEMATIC DIAGRAM OF REAR BOARD (WV-CP214)



Note: The value indicated in schematic diagram should be read as follows:



<Example>

For Resistor:

330 ⟶ 33 x 10^0 = 33Ω
561 ⟶ 56 x 10^1 = 560Ω
123 ⟶ 12 x 10^3 = 12kΩ
0R00 = 0Ω

For Capacitor:

B20 ⟶ 82 x 10^0 = 82pF
102 ⟶ 10 x 10^2 = 1000pF = 0.001μF
104 ⟶ 10 x 10^4 = 100000pF = 0.1μF

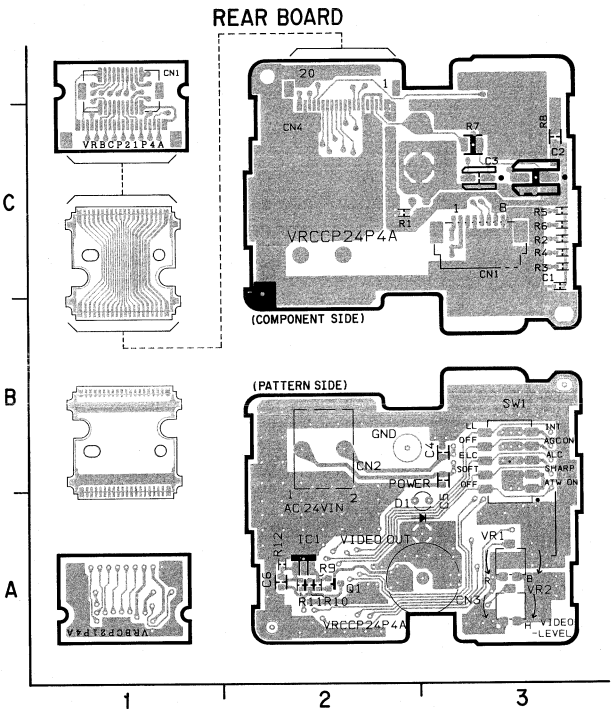
The suffix attached to capacitance indicates a type of capacitor.

<Index>

REAR BOARD

IC1	A2
Q1	A1
D1	B1

CONDUCTOR VIEW OF REAR BOARD (WV-CP214)



<Index>

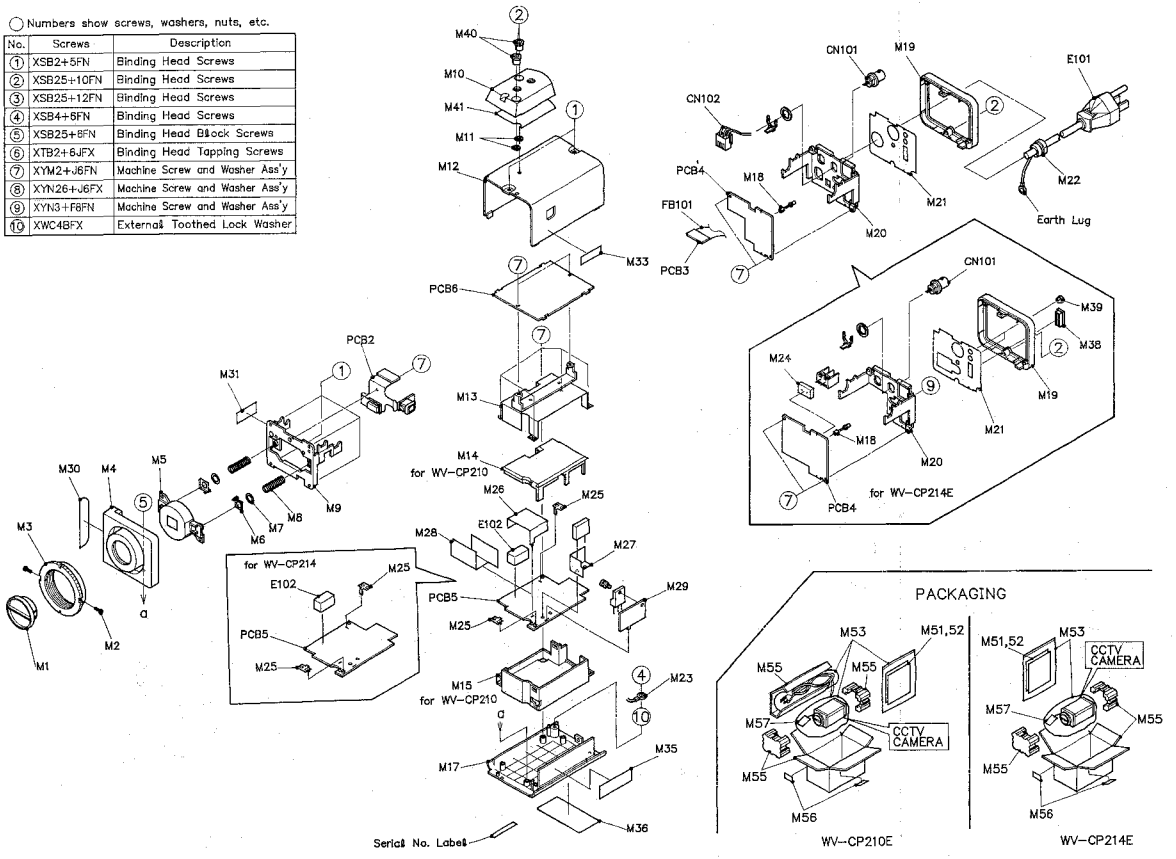
REAR BOARD

IC1	A2
Q1	A2
D1	A3

EXPLODED VIEW for WV-CP210 / WV-CP214

◯ Numbers show screws, washers, nuts, etc.

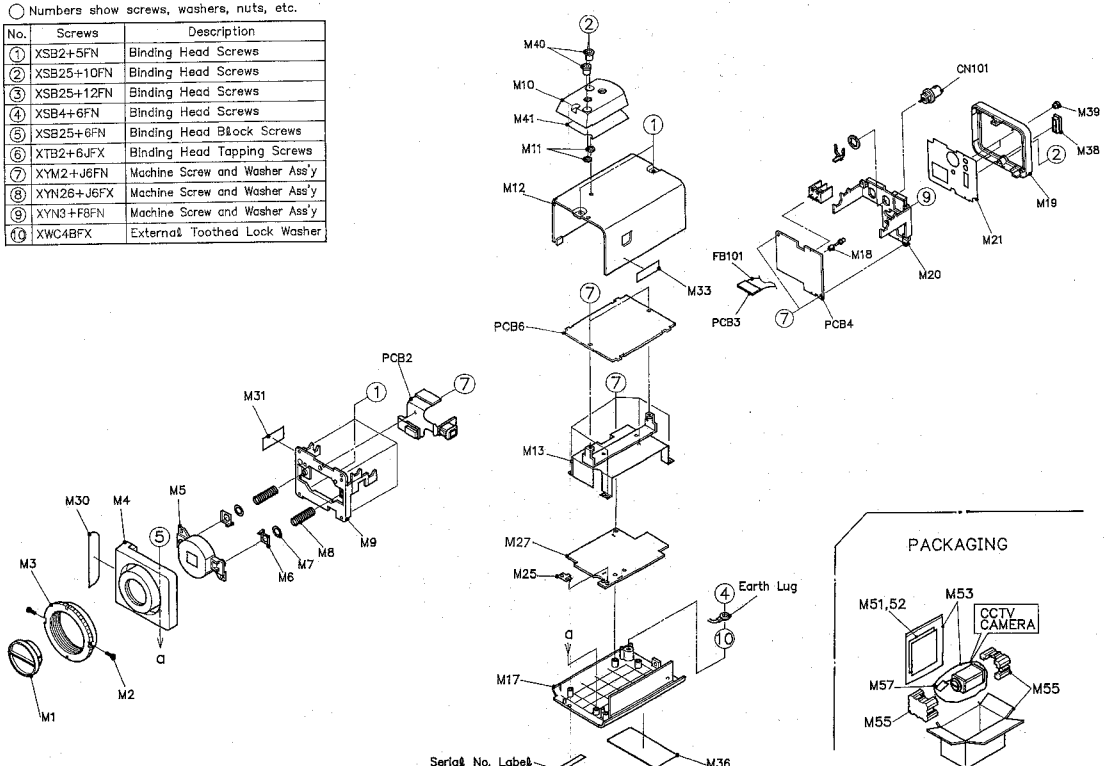
No.	Screws	Description
①	XSB2+5FN	Binding Head Screws
②	XSB25+10FN	Binding Head Screws
③	XSB25+12FN	Binding Head Screws
④	XSB4+6FN	Binding Head Screws
⑤	XSB25+8FN	Binding Head Block Screws
⑥	XTB2+6JFX	Binding Head Tapping Screws
⑦	XYM2+J6FN	Machine Screw and Washer Ass'y
⑧	XYN26+J6FX	Machine Screw and Washer Ass'y
⑨	XYN3+F8FN	Machine Screw and Washer Ass'y
⑩	XWC4BFX	External Toothed Lock Washer



EXPLODED VIEW for WV-CP212

◯ Numbers show screws, washers, nuts, etc.

No.	Screws	Description
①	XSB2+5FN	Binding Head Screws
②	XSB25+10FN	Binding Head Screws
③	XSB25+12FN	Binding Head Screws
④	XSB4+6FN	Binding Head Screws
⑤	XSB25+6FN	Binding Head Block Screws
⑥	XTB2+6JFX	Binding Head Tapping Screws
⑦	XYM2+J6FN	Machine Screw and Washer Ass'y
⑧	XYN26+J6FX	Machine Screw and Washer Ass'y
⑨	XYN3+F8FN	Machine Screw and Washer Ass'y
⑩	XWC4BFX	External Toothed Lock Washer



REPLACEMENT PARTS LIST

Important Notice

1. Components identified by "<!>" mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. RTL : Retention Time Limited,

REF.NO.	PART NO.	DESCRIPTION
1/3"COLOR CCD CAMERA WV-CP210		
MISCELLANEOUS		
FB1	YWCP210J1	Flexible Board
F1 <!>	XBAZC04ET0A	Current Fuse 0.4A 250V
CN101	YWP2270	BNC Connector
CN102	YWVAR2	2-pin Connector
E101 <!>	YWKP4819DSXG	Power Cord for WV-CP210/G
	YWKP5515XA	Power Cord for WV-CP210/A
	YWKP6105XB	Power Cord for WV-CP210/B
E102	YW840522	Insulator Fuse Cover
E110	YW-BCG-EM01	Earth Lug
M1	YWBC-2B	Body Cap
M2	YWV1EB0127A4	Special Screw for FB Lock
M3	YWV3FA0175A3	FB Control Ring
M4	YWV5BA0120A2	Front Escutcheon
M5	YWVAKA1192AN	Optical Head Assy
M6	YWV4JA0479A4	Spring Plate
M7	YWV2CA0386A4	Hold Plate for Spring Plate
M8	YWV4JA0478A4	Spring Coil
M9	YWV2SA2640A3	Front Mounting Angle
M10	YWV2TB0333A3	Mounting Bracket
M11	YWV1KA0128A4	Washer
M12	YWV5EA1337A2	Upper Cover
M13	YWV2HA1168A3	Shield Mounting Angle
M14	YWV6EA0196A3	Lid
M15	YWV5KA1357A3	Shield Case
M17	YWV2KA0874A2	Bottom Cover
M19	YWV5BA0121A3	Rear Escutcheon
M20	YWV2SA2641A3	Mounting Angle
M21	YWV5WA1579A4	Rear Panel
M22	YWSR6W1	Cord Clamp
M30	YWV5WA1584A4	Front Side Panel
M33	YWV7SA1906A4	Label
M35	YWV7MA0412A4	Fuse Change Label
M36 <!>	YWV7QA3194A4	Main Label for WV-CP210/B
	YWV7QA3195A4	Main Label for WV-CP210/G
	YWV7QA3196A4	Main Label for WV-CP210/A
M40	YWV2NA0084A4	Spacer
M41	YWV2PA0615A4	Insulator

REF.NO.	PART NO.	DESCRIPTION
ALC BOARD		
PCB2 (RTL)	YWVKYCP21P5A	Printed Circuit Board Assy
L8	ELJFC8R2MF	Coil 8.2 µH
L9	ELJFCR68MF	Coil 0.68 µH
L11,12	ELJFC8R2MF	Coil 8.2 µH
CN1	AXN420330P	30-pin Connector
CN2	YFD4151N200	ALC 4-pin Connector
CN3	YW525881890	18-pin Connector
REAR SUB BOARD		
PCB3 (RTL)	YWVKBCP21P4A	Printed Circuit Board Assy
CN1	YW525882090	20-pin Connector
REAR BOARD		
PCB4 (RTL)	YWVKCCP21P4A	Printed Circuit Board Assy
IC1	YWM5237ML	IC
Q1	2SB710-QRS	Transistor
D1	LN28RPPN	LED
R1	ERJ3GEYJ751	Carbon 750 ohms 1/16W
R2-6	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R7	ERJ14YJ750	Carbon 75 ohms 1/4W
R8	YF2116222GT	Carbon 2.2K ohms 1/10W
R9	ERJ3GEYJ221	Carbon 220 ohms 1/16W
R10	ERJ3GEYG113	Carbon 11K ohms 1/10W
R11	ERJ3GEYG431	Carbon 430 ohms 1/10W
R12	ERJ3GEYG432	Carbon 4.3K ohms 1/10W
VR1,2	YWST4B203	Variable Resistor 20K ohms
C1	YW5F104Z2VB	Ceramic 0.1 µF
C2	ECEV0JV101	Electrolytic 100 µF 6.3V
C3	ECEV0JV220	Electrolytic 22 µF 6.3V
C6	YWE212F105ZT	Ceramic 1 µF
SW1	YWKSD05S	Slide Switch
CN1	YW533910690	6-pin Connector
M18	YWLH53	LED Spacer

POWER BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB5 (RTL)	YWVKYCP21E3A	Printed Circuit Board Assy	
IC1	YWEA5304S	IC	
IC2	YWTA76431S	IC	
Q1	2SK1548O1M	FET	
Q4	2SC2412-QRS	Transistor	
D1 <1>	S1VB60	Diode	
D2	YWDAN217	Diode	
D3	YWSC2012	Diode	
D4	YWDTZ5.1	Diode	
D5,6	YWPC111LY	Diode	
D7	YWSC80206L	Diode	
VS1	ERZC07DK471U	ZNR	
R1	ERJ14YJ114	Carbon	110Kohms 1/4W
R2	YF2116220JT	Carbon	22ohms 1/10W
R3	YF2116184JT	Carbon	180Kohms 1/10W
R4	YF2116220JT	Carbon	22ohms 1/10W
R5	ERJ6GEYJ153	Carbon	15Kohms 1/10W
R6	YW2116242JT	Carbon	2.4Kohms 1/10W
R7	ERJ6GEYJ221	Carbon	220ohms 1/10W
R8	ERJ14YJ1R5	Carbon	1.5 ohms
R9,10	ERJ14YJ913	Carbon	91Kohms
R11	YF2116822JT	Carbon	8.2Kohms 1/10W
R12	ERJ6GEYJ470	Carbon	47ohms 1/10W
R13	ERJ6GEYJ102	Carbon	1Kohms 1/10W
R14	YWR1220P390D	Metal	39 ohms
R15	YWR1220P622D	Metal	6.2K ohms
R16	YF2116681JT	Carbon	680ohms 1/10W
R17	YWR1220P622D	Metal	6.2K ohms
R18	ERJ6GEYJ103	Carbon	10Kohms 1/10W
R19	ERJ6GEYJ512	Carbon	5.1Kohms 1/10W
R20	YF2116124GT	Carbon	120Kohms 1/10W
R21,22	ERJ14YJ114	Carbon	110Kohms 1/4W
R23	ERJ6GEYJ363	Carbon	36Kohms 1/10W
R30	ERJ6GEY0R00	Carbon	0ohms 1/10W
R31,32	ERJ8GC50R00	Carbon	0ohms 1/10W
C1 <1>	ECQU2A333MV	Plastic	0.033 µF
C2-4 <1>	ECKDRS222ME	Ceramic	2200 pF
C5	RJ3400V100M	Electrolytic	10 µF
C6	ECA1VFQ270	Electrolytic	27 µF
C7	YW400105FZ	Ceramic	1 µF
C8	YF400681CHJT	Ceramic	680 µF 50V
C9	YF400104FZT	Ceramic	0.1 µF
C10	ECEA1HGE3R3	Electrolytic	3.3 µF 50V
C11	YF400103XKT	Ceramic	0.01 µF
C12	YF400822XKT	Ceramic	8200 pF
C13	YF400103XKT	Ceramic	0.01 µF
C14,15	ECA1CFQ271	Electrolytic	270 µF 16V
C16	ECA1AFQ181	Electrolytic	180 µF 10V
C17	YF400104FZT	Ceramic	0.1 µF
C18,19	ECKDR5332ME	Ceramic	3300 pF

REF.NO.	PART NO.	DESCRIPTION	
C20	ECQU2A563MT	Plastic	0.056 µF
L1	ELF23F215A	Coil	
L2	YWPC7330K	Coil	33 µH
T1 <1>	YWPC19HWA5	Power Transformer	
CN1	YWB2P3VH	2-pin Connector	
CN2	YW526630610	6-pin Connector	
E1,2	S-N5057	Fuse Holder	
E3,4	YWB51040	Insulator	
M25	YWV1KA0181A4	Washer	
M26	YWV2HA1169A4	Shield Parts	
M27	YWV2PA0612A4	Insulator	
M28	YWV2PA0613A4	Insulator	
M29	YWV7DA0374B4	Heat Sink	

MAIN BOARD

PCB6 (RTL)	YWVKYCP21E2A	Printed Circuit Board Assy
IC2	AN2018S	IC
IC3	YWTC74VC04F	IC
IC5	MN38605A	IC
IC6	YWCXD2404R	IC
IC8	AN2145NFHP	IC
IC9	MN3111H	IC
IC10	YWLM324DBEL	IC
IC11	YWNJM3416	IC
IC16	MN13821R	IC
IC18	YWPD75064501	IC
IC20	YWMB88346BEF	IC
IC21	YWBR93LC46	IC
IC22	YWMB88346BEF	IC
IC23	MN73093	IC
IC25	YWTC7S04F	IC
IC26	YWSC14S69F	IC
IC27	AN24585H	IC
IC28	YWPC5020G070	IC
IC29	YWSC14S66F	IC
Q1	2SK853	Transistor
Q2,3	2SK662-PQR	FET
Q4	2SK853	Transistor
Q11	2SC4619	Transistor
Q12	2SC4627	Transistor
Q13,15	2SC4617	Transistor
Q16,17	2SC4617	Transistor
Q19,20	2SC4617	Transistor
Q23	XN4501	Transistor
Q26,29	2SA1774	Transistor
Q30,31	2SA1774	Transistor
Q32,33	2SC4617	Transistor
D2	MA132K	Diode
D7	YWDA121	Diode
D8-11	MA726	Diode

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
D12	MA8100	Diode		R126	YF2116106JT	Carbon	10M ohms 1/10W
D13	MA8150	Diode		R128	ERJ3GEYJ153	Carbon	15K ohms 1/16W
D14-21	MA372	Diode		R129	ERJ3GEYJ224	Carbon	220K ohms 1/16W
D22-27	YWDA221	Diode		R132	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
D28	YWDA121	Diode		R133	ERJ3GEYJ153	Carbon	15K ohms 1/16W
D29	MA726	Diode		R138	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R3	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R141	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R19,21	ERJ3GEYJ270	Carbon	27 ohms 1/16W	R142	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R24	ERJ3GEYJ270	Carbon	27 ohms 1/16W	R143	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R32	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R145	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R37	ERJ3GEYJ621	Carbon	620 ohms 1/16W	R146	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R38	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R147	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R39	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R148	ERJ3GEYJ391	Carbon	390 ohms 1/16W
R43	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R150	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R44	ERJ3GEYJ202	Carbon	2K ohms 1/16W	R151	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R45	ERJ3GEYJ621	Carbon	620 ohms 1/16W	R153	ERJ3GEYJ821	Carbon	820 ohms 1/16W
R46	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R157-159	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R47	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W	R160	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R56	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R161	ERJ3GEYJ393	Carbon	39K ohms 1/16W
R57,58	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R162	ERJ3GEYJ180	Carbon	18 ohms
R59	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R163	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R60	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R164	ERJ3GEYJ154	Carbon	150K ohms 1/16W
R61	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R165	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R62,65	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R166	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R66	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R167,168	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R67	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R170	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R68	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R171	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R70	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R172	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R72	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R173	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R73	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W	R174	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R74	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R175	ERJ3GEYJ393	Carbon	39K ohms 1/16W
R75	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R179	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W
R76	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R182	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R77	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W	R183	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R81	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R185	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R84	ERJ3GEYJ821	Carbon	820 ohms 1/16W	R186,187	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R87	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R188	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R88,89	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R189	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R92	ERJ3GEYJ154	Carbon	150K ohms 1/16W	R190	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R93	ERJ3GEYJ514	Carbon	510K ohms 1/16W	R191	ERJ3GEYJ684	Carbon	680K ohms 1/16W
R94	ERJ3GEYJ121	Carbon	120 ohms 1/16W	R193	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R95	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R194	ERJ3GEYJ433	Carbon	43K ohms 1/16W
R97	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R196,198	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R103	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R200	ERJ3GEYJ203	Carbon	20K ohms 1/16W
R108	ERJ3GEYJ432	Carbon	4.3K ohms 1/16W	R201	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R110-112	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R202	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R113	ERJ3GEYJ623	Carbon	62K ohms 1/16W	R203	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R114,116	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R205	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R117	ERJ3GEYJ104	Carbon	100K ohms 1/16W	R207	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W
R118	ERJ3GEYJ302	Carbon	3K ohms 1/16W	R209	ERJ3GEYJ203	Carbon	20K ohms 1/16W
R120	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R213	ERJ3GEYJ393	Carbon	39K ohms 1/16W
R121	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W	R214	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R123	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R217	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R124	ERJ3GEYJ180	Carbon	18 ohms 1/16W	R218	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R125	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R219	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R220	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R221	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R222	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R223	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R224	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R225,226	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R227	ERJ3GEYJ681	Carbon	680 ohms 1/16W
R228	ERJ3GEYJ331	Carbon	330 ohms 1/16W
R230	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R231	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R232	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R233	ERJ3GEYJ821	Carbon	820 ohms 1/16W
R235	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R236,237	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R239	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R240	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R245	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R246	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R247	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R248	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R249	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R250	ERJ3GEYJ271	Carbon	270 ohms 1/16W
R251	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R252	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R253	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R255	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R256	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R257	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R259	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R260	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R263	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R264	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R265	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R267,268	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R269	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R270	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R271	ERJ3GEYJ184	Carbon	180K ohms 1/16W
R275	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R276	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R278	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R279,280	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R282	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R283	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R285	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R287,288	ERJ3GEYJ122	Carbon	1.2K ohms 1/16W
R289	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R290,291	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W
R292	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R294	ERJ3GEYJ511	Carbon	510 ohms 1/16W
R295	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R297	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R298	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R299,300	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R301	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R302	ERJ3GEYJ221	Carbon	220 ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R304	ERJ3GEYJ561	Carbon	560 ohms 1/16W
R306	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R307	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R308	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R309	ERJ3GEYJ474	Carbon	470K ohms 1/16W
R310	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R311	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R313	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R314	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R317	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R318	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R319	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R320	ERJ3GEYJ823	Carbon	82K ohms 1/16W
R321	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R322	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R323	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R324	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R325	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R326-328	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R329	ERJ3GEYJ821	Carbon	820 ohms 1/16W
R330	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R336	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R337	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R338	ERJ3GEYJ302	Carbon	3K ohms 1/16W
R339	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R500	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R501	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R502	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R505	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R507	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R508	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R509	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R513	ERJ3GEYJ751	Carbon	750 ohms 1/16W
R515	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R516	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R517	ERJ3GEYJ823	Carbon	82K ohms 1/16W
R518,519	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R520	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R521,522	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W
R528	YF2116185JT	Carbon	1.8M ohms 1/10W
R529	ERJ3GEYJ331	Carbon	330 ohms 1/16W
R531	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R533	ERJ3GEYJ683	Carbon	68K ohms 1/16W
R534,535	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R536	ERJ3GEYJ683	Carbon	68K ohms 1/16W
R537,538	ERJ3GEYJ224	Carbon	220K ohms 1/16W
R541-544	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R545	ERJ3GEYJ911	Carbon	910 ohms 1/16W
R546	ERJ3GEYJ202	Carbon	2K ohms 1/16W
C11	YW5CH151J5VB	Ceramic	150 pF
C13	YW5CH560J5VB	Ceramic	56 pF
C14	YW5CH151J5VB	Ceramic	150 pF
C18	YW5CH270J5VB	Ceramic	27 pF
C19	YW5CH330J5VB	Ceramic	33 pF
C21	YW5X103K2VB	Ceramic	0.01 µF

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
C25	YW5CH101J5VB	Ceramic	100 pF	C125	ECEV0JV220	Electrolytic	22 µF 6.3V
C26	YW5F104Z2VB	Ceramic	0.1 µF	C126	YWE212F105ZT	Ceramic	1 µF
C28,29	YW5X103K2VB	Ceramic	0.01 µF	C127	ECST1AY225ZR	Electrolytic	2.2 µF 10V
C30	YF400104FZT	Ceramic	0.1 µF	C128	YF400104FZT	Ceramic	0.1 µF
C31	YW5X102K5VB	Ceramic	1000 pF	C129	ECEV1EV220	Electrolytic	22 µF 25V
C35	YW5CH331J5VB	Ceramic	330 pF	C130	YW5X222K5VB	Ceramic	2200 pF
C36	YW5F104Z2VB	Ceramic	0.1 µF	C131	ECEV1CV220	Electrolytic	22 µF 16V
C37	YW5X102K5VB	Ceramic	1000 pF	C132	ECEV1EV220	Electrolytic	22 µF 25V
C38	YW5CH331J5VB	Ceramic	330 pF	C133	ECEV1CV220	Electrolytic	22 µF 16V
C40	YW5F473Z2VB	Ceramic	0.047 µF	C134	ECEV1HV010	Electrolytic	1 µF 50V
C43	YW5X103K2VB	Ceramic	0.01 µF	C135	ECEV1EV220	Electrolytic	22 µF 25V
C44,45	YF400104FZT	Ceramic	0.1 µF	C136	ECEV1CV100	Electrolytic	10 µF 16V
C46	YW5X103K2VB	Ceramic	0.01 µF	C137	ECEV1EV6R8	Electrolytic	6.8 µF 25V
C47	YF400104FZT	Ceramic	0.1 µF	C139	ECEV0JV220	Electrolytic	22 µF 6.3V
C48	YW5F104Z2VB	Ceramic	0.1 µF	C140	ECEV1EV220	Electrolytic	22 µF 25V
C50	YW400473XK	Ceramic	0.047 µF	C141	YF400104FZT	Ceramic	0.1 µF
C52	TAJA105M016	Electrolytic	1 µF 16V	C142	ECEV1HV010	Electrolytic	1 µF 50V
C53,55	YW400473XK	Ceramic	0.047 µF	C143	ECEV0JV470S	Electrolytic	47 µF 6.3V
C56,57	YW5F104Z2VB	Ceramic	0.1 µF	C145	ECEV1EV220	Electrolytic	22 µF 25V
C58	YW5X103K2VB	Ceramic	0.01 µF	C146	YWE212F105ZT	Ceramic	1 µF
C59	YW5F104Z2VB	Ceramic	0.1 µF	C148	ECEV1EV4R7	Electrolytic	4.7 µF 25V
C61,63	YF400104FZT	Ceramic	0.1 F	C149	ECEV1EV220	Electrolytic	22 µF 25V
C64,65	YW5X103K2VB	Ceramic	0.01 µF	C150,151	ECEV1EV4R7	Electrolytic	4.7 µF 25V
C66	YW5F104Z2VB	Ceramic	0.1 µF	C152	ECEV0JV101	Electrolytic	100 µF 6.3V
C67	YF400104FZT	Ceramic	0.1 µF	C154	ECEV1HV2R2	Electrolytic	2.2 µF 50V
C69	YW5X103K2VB	Ceramic	0.01 µF	C155	ECEV1HV3R3SR	Electrolytic	3.3 µF 50V
C71	YF400104FZT	Ceramic	0.1 µF	C156	ECEV1CV100	Electrolytic	10 µF 16V
C72	YW5X103K2VB	Ceramic	0.01 µF	C160	ECEV0JV470S	Electrolytic	47 µF 6.3V
C74	YW5X102K5VB	Ceramic	1000 pF	C170	YWE212F105ZT	Ceramic	1 µF
C75,78	YF400224FZT	Ceramic	0.22 µF	C171	ECEV1HN2R2	Electrolytic	2.2 µF 50V
C80	YF400104FZT	Ceramic	0.1 µF	C172	YWE212F105ZT	Ceramic	1 µF
C81	YW400473XK	Ceramic	0.047 µF	C175,176	YWE212F105ZT	Ceramic	1 µF
C82	YF400104FZT	Ceramic	0.1 µF	C177	ECST1AC336ZR	Tantalum	33 µF 10V
C83	YW5X102K5VB	Ceramic	1000 pF	C178	YF400223XKT	Ceramic	0.022 µF
C84	YW5F104Z2VB	Ceramic	0.1 µF	C181,183	YWE212F105ZT	Ceramic	1 µF
C86	YW5X103K2VB	Ceramic	0.01 µF	C184	TAJA105M016	Tantalum	1 µF 16V
C87	YW5X102K5VB	Ceramic	1000 pF	C185	ECST1AB106	Tantalum	10 µF 10V
C88	YW5CH100J5VB	Ceramic	10 pF	C186	ECST0JY106ZR	Tantalum	10 µF 6.3V
C89	YW5CH470J5VB	Ceramic	47 pF	C187	ECST1AB106	Tantalum	10 µF 10V
C92	YF400104FZT	Ceramic	0.1 µF	C189,190	YWE212F105ZT	Ceramic	1 µF
C94,96	YW5CH330J5VB	Ceramic	33 pF	C196,197	YWE212F105ZT	Ceramic	1 µF
C99	YW5F104Z2VB	Ceramic	0.1 µF	C198	ECST1AB106	Tantalum	10 µF 10V
C100	YW5X103K2VB	Ceramic	0.01 µF	C199	ECST0JX106	Tantalum	10 µF 6.3V
C101	YW5CH360J5VB	Ceramic	36 pF	C200	ECST1AB106	Tantalum	10 µF 10V
C102	YW5CH270J5VB	Ceramic	27 pF	C202	TAJA105M016	Tantalum	1 µF 16V
C105	YW5CH101J5VB	Ceramic	100 pF	C203	ECST1AY225ZR	Tantalum	2.2 µF 10V
C106	YW5F104Z2VB	Ceramic	0.1 F	C204	YW5CH101J5VB	Ceramic	100 pF
C107,108	YW5CH331J5VB	Ceramic	330 pF	C205	YW5F104Z2VB	Ceramic	0.1 µF
C109,110	YW5CH271J5VB	Ceramic	270 pF	C206	YW5X103K2VB	Ceramic	0.01 µF
C111,113	YF400104FZT	Ceramic	0.1 µF	C208-210	YW5CH050D5VB	Ceramic	5 pF
C114	YW5X103K2VB	Ceramic	0.01 µF	C211	YF400104FZT	Ceramic	0.1 µF
C115	YW400393XKT	Ceramic	0.039 µF	C212,213	YW5F104Z2VB	Ceramic	0.1 µF
C118,119	YF400104FZT	Ceramic	0.1 µF	C214	ECST1AY225ZR	Tantalum	2.2 µF 10V
C123	ECEV1CV100	Electrolytic	10 µF16V	C215	YW5X103K2VB	Ceramic	0.01 µF
C124	YWE212F105ZT	Ceramic	1 µF	C219	ECST1VD106	Tantalum	10 µF 35V

REF.NO.	PART NO.	DESCRIPTION	
C220	YWE212F105ZT	Ceramic	1 µF
C221	YW5CH470J5VB	Ceramic	47 pF
C222	YW5CH330J5VB	Ceramic	33 pF
L7	ELJFC150KB	Coil	15 µH
L10	ELJFC150KB	Coil	15 µH
L13	ELJFC8R2MF	Coil	8.2 µH
L14	EIC4EN006E	Coil	
L15	ELJFC8R2MF	Coil	8.2 µH
L19	ELJFB101KB	Coil	100 µH
L21	ELJFC8R2MF	Coil	8.2 µH
L24	ELJSC330KB	Coil	
L30,31	ELJFC8R2MF	Coil	8.2 µH
L33	EIC4EJ003E	Coil	
L35	ELJFC8R2MF	Coil	8.2 µH
X1	YWCSTCS419MG	Crystal Oscillator	
X2	YWDX17R734	Crystal Oscillator	
X3	YWDX14R187	Crystal Oscillator	
CF5	ELB4B532	Filter	
CF6	YW4FW7250	Filter	
CF7	YW4FW7249	Filter	
CN1,3	YW31756316	6-pin Connector	
CN4	YW533072091	20-pin Connector	
CN6	YW533071891	18-pin Connector	

ACCESSORY PARTS/PACKAGING PARTS

M51	YWV8QA3217AN	Operating Instructions
M53	YWT20X35C03	Polyethylene Bag
M55	YWV9CA2185AN	Packaging Assy for WV-CP210/B
	YWV9CA2186AN	Packaging Assy for WV-CP210/G
	YWV9CA2190AN	Packaging Assy for WV-CP210/A
M56	YWV7FA0201A4	Packaging Label for WV-CP210/B
M57	YWV7SA1450A4	Caution Label for WV-CP210/B,G

REF.NO.	PART NO.	DESCRIPTION

1/3"COLOR CCD CAMERA WV-CP212

MISCELLANEOUS

FB1	YWCP210J1	Flexible Board
CN101	YWP2270	BNC Connector
M1	YWBC-2B	Body Cap
M2	YWV1EB0127A4	Special Screw for FB Lock
M3	YWV3FA0175A3	FB Control Ring
M4	YWV5BA0120A2	Front Escutcheon
M5	YWVAKA1192AN	Optical Head Assy
M6	YWV4JA0479A4	Spring Plate
M7	YWV2CA0386A4	Hold Plate for Spring Plate
M8	YWV4JA0478A4	Spring Coil
M9	YWV2SA2640A3	Front Mounting Angle
M10	YWV2TB0333A3	Mounting Bracket
M11	YWV1KA0128A4	Washer
M12	YWV5EA1337A2	Upper Cover
M13	YWV2HA1168A3	Shield Parts
M17	YWV2KA0874A2	Bottom Cover
M19	YWV5BA0121A3	Rear Escutcheon
M20	YWV2SA2642A3	Rear Mounting Angle
M21	YWV5WA1607A4	Rear Panel
M25	YWV1KA0181A4	Washer
M27	YWV2NA0462A4	Spacer Board
M33	YWV7SA1954A4	Label
M36 <!>	YWV7QA3254A4	Main Label
M38	YWV5GA0158A4	Cap for Switch
M39	YWV5GA0156A4	Cap for VR
M40	YFV2NA0084A4	Spacer
M41	YWV2PA0615A4	Insulator

ALC BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB2 (RTL)	YWVKYCP21P5A	Printed Circuit Board Assy
L8	ELJFC8R2MF	Coil 8.2 µH
L9	ELJFCR68MF	Coil 0.68 µH
L11,12	ELJFC8R2MF	Coil 8.2 µH
CN1	AXN420330P	30-pin Connector
CN2	YFD4151N200	ALC 4-pin Connector
CN3	YWS25881890	18-pin Connector

REAR SUB BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB3 (RTL)	YWVKBCP22P4A	Printed Circuit Board Assy
CN1	YWS25882090	20-pin Connector

REAR BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB4 (RTL)	YWVKCCP22P4A	Printed Circuit Board Assy
IC1	YWMB3775PFV	IC
Q1	2SB766A-QR	Transistor
D1	LN28RPPN	LED
D2	YWSC80206L	Diode
R1	ERJ3GEYJ751	Carbon 750 ohms 1/16W
R2,4	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R5,6	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R7	ERJ14YJ750	Carbon 75 ohms
R8	YF21162222GT	Carbon 2.2K ohms 1/10W
R9	ERJ3GEYG183	Carbon 18K ohms 1/16W
R10	ERJ3GEYJ102	Carbon 1K ohms 1/16W
R11	ERJ3GEYG622	Carbon 6.2K ohms 1/16W
R12	ERJ3GEYJ471	Carbon 470 ohms 1/16W
R13	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R14	ERJ3GEYJ333	Carbon 33K ohms 1/16W
R15	ERJ3GEYJ471	Carbon 470 ohms 1/16W
R16	ERJ3GEYJ333	Carbon 33K ohms 1/16W
VR1,2	YWST4B203	Variable Resistor 20K ohms
C1	YW5F10422VB	Ceramic 0.1 µF
C2	ECEV0JV101	Electrolytic 100 µF 6.3V
C3	ECEV0JV220	Electrolytic 22 µF 6.3V
C4,5	ECEV0JG331	Electrolytic 330 µF 6.3V
C6	YW5CH331J5VB	Ceramic 330 pF
C7	ECEV1HV010	Electrolytic 1 µF 50V
C8	YW5F10422VB	Ceramic 0.1 µF
C9	ECST1CY684ZR	Electrolytic 0.68 µF 16V
C10	ECEV1EG101	Electrolytic 100 µF 25V
C11	YWE212F105ZT	Ceramic 1 µF
L1	YWCD75560KC	Coil 56 µH
L2	YWCD75101KC	Coil 100 µH
L3	YWCDR74221MC	Coil 220 µH
L4	ELJFC150KB	Coil 15 µH
SW1	YWKSD04S	Slide Switch
F1	YW5SFC0R8	Current Fuse 0.8 A
E2	YWT6746	2-pin Terminal
M18	YWLH53	LED Spacer

MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB6 (RTL)	YWVKYCP22E2A	Printed Circuit Board Assy
IC2	AN2018S	IC
IC3	YWTC74VC04F	IC
IC5	MN3860SA	IC
IC6	YWCXD2404R	IC
IC8	AN2145NFHP	IC
IC9	MN3111H	IC
IC10	YWLM324DBEL	IC
IC11	YWNJM3416	IC
IC16	MN13821R	IC
IC18	YWPD75064501	IC
IC20	YWMB88346BEF	IC
IC21	YWBR93LC46	IC
IC22	YWMB88346BEF	IC
IC23	MN73093	IC
IC25	YWTC7S04F	IC
IC27	AN2458SH	IC
IC28	YWC5020074E1	IC
IC29	YWSC14566F	IC
Q1	2SK853	Transistor
Q2,3	2SK662-PQR	FET
Q11	2SC4619	Transistor
Q12	2SC4627	Transistor
Q13,15	2SC4617	Transistor
Q16,17	2SC4617	Transistor
Q19,20	2SC4617	Transistor
Q23	XN4501	Transistor
Q26	2SA1774	Transistor
Q29-31	2SA1774	Transistor
Q32,33	2SC4617	Transistor
D2	MA132K	Diode
D7	YWDA121	Diode
D8-11	MA726	Diode
D12	MA8100	Diode
D13	MA8150	Diode
D14-17	MA372	Diode
D20,21	MA372	Diode
D22-27	YWDA221	Diode
D28	YWDA121	Diode
D29	MA726	Diode

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
R3	ERJ6GEY0R00	Carbon 1 ohms 1/10W	R132	ERJ3GEYJ562	Carbon 5.6K ohms 1/16W
R19	ERJ3GEYJ270	Carbon 27 ohms 1/16W	R133	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R21	ERJ3GEYJ270	Carbon 27 ohms 1/16W	R138	ERJ3GEYJ183	Carbon 18K ohms 1/16W
R24	ERJ3GEYJ270	Carbon 27 ohms 1/16W	R141	ERJ3GEYJ333	Carbon 33K ohms 1/16W
R32	ERJ3GEYJ101	Carbon 100 ohms 1/16W	R142	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R37	ERJ3GEYJ621	Carbon 620 ohms 1/16W	R143	ERJ3GEYJ223	Carbon 22K ohms 1/16W
R38	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W	R145	ERJ3GEYJ104	Carbon 100K ohms 1/16W
R39	ERJ3GEYJ472	Carbon 4.7K ohms 1/16W	R146	ERJ3GEYJ563	Carbon 56K ohms 1/16W
R43	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W	R147	ERJ3GEYJ104	Carbon 100K ohms 1/16W
R44	ERJ3GEYJ202	Carbon 2K ohms 1/16W	R148	ERJ3GEYJ391	Carbon 390 ohms 1/16W
R45	ERJ3GEYJ621	Carbon 620 ohms 1/16W	R150	ERJ3GEYJ562	Carbon 5.6K ohms 1/16W
R46	ERJ3GEYJ101	Carbon 100 ohms 1/16W	R151	ERJ3GEYJ273	Carbon 27K ohms 1/16W
R47	ERJ3GEYJ152	Carbon 1.5K ohms 1/16W	R153	ERJ3GEYJ821	Carbon 820 ohms 1/16W
R56	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W	R157-159	ERJ3GEYJ273	Carbon 27K ohms 1/16W
R57,58	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R160	ERJ3GEYJ472	Carbon 4.7K ohms 1/16W
R59	ERJ3GEYJ103	Carbon 10K ohms 1/16W	R161	ERJ3GEYJ393	Carbon 39K ohms 1/16W
R60	ERJ3GEYJ751	Carbon 750 ohms 1/16W	R162	ERJ3GEYJ180	Carbon 18 ohms 1/16W
R61	ERJ3GEYJ101	Carbon 100 ohms 1/16W	R163	ERJ3GEYJ333	Carbon 33K ohms 1/16W
R62,65	ERJ3GEY0R00	Carbon 0 ohms 1/16W	R164	ERJ3GEYJ154	Carbon 150K ohms 1/16W
R66	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R165	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R67	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W	R166	ERJ3GEYJ223	Carbon 22K ohms 1/16W
R68	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R167,168	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R70	ERJ3GEYJ472	Carbon 4.7K ohms 1/16W	R170	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R72	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W	R171	ERJ3GEYJ563	Carbon 56K ohms 1/16W
R73	ERJ3GEYJ182	Carbon 1.8K ohms 1/16W	R172	ERJ3GEYJ472	Carbon 4.7K ohms 1/16W
R74	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W	R173	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R75	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R174	ERJ3GEYJ472	Carbon 4.7K ohms 1/16W
R76	ERJ3GEYJ682	Carbon 6.8K ohms 1/16W	R175	ERJ3GEYJ393	Carbon 39K ohms 1/16W
R77	ERJ3GEYJ182	Carbon 1.8K ohms 1/16W	R179	ERJ3GEYJ392	Carbon 3.9K ohms 1/16W
R81	ERJ3GEYJ103	Carbon 10K ohms 1/16W	R182	ERJ3GEY0R00	Carbon 0 ohms 1/16W
R84	ERJ3GEYJ821	Carbon 820 ohms 1/16W	R183	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R87	ERJ3GEYJ472	Carbon 4.7K ohms 1/16W	R185	ERJ3GEYJ102	Carbon 1K ohms 1/16W
R88,89	ERJ3GEYJ103	Carbon 10K ohms 1/16W	R186,187	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R92	ERJ3GEYJ154	Carbon 150K ohms 1/16W	R188	ERJ3GEYJ332	Carbon 3.3K ohms 1/16W
R93	ERJ3GEYJ514	Carbon 510K ohms 1/16W	R189	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R94	ERJ3GEYJ121	Carbon 120 ohms 1/16W	R190	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R95	ERJ3GEYJ682	Carbon 6.8K ohms 1/16W	R191	ERJ3GEYJ684	Carbon 680K ohms 1/16W
R97	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W	R193	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R103	ERJ3GEY0R00	Carbon 0 ohms 1/16W	R194	ERJ3GEYJ433	Carbon 43K ohms 1/16W
R105	ERJ3GEY0R00	Carbon 0 ohms 1/16W	R196	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R108	ERJ3GEYJ432	Carbon 4.3K ohms 1/16W	R198	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R110-112	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W	R200	ERJ3GEYJ203	Carbon 20K ohms 1/16W
R113	ERJ3GEYJ623	Carbon 62K ohms 1/16W	R201	ERJ3GEYJ273	Carbon 27K ohms 1/16W
R114	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R202	ERJ3GEYJ562	Carbon 5.6K ohms 1/16W
R116	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R203	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R117	ERJ3GEYJ104	Carbon 100K ohms 1/16W	R205	ERJ3GEYJ273	Carbon 27K ohms 1/16W
R118	ERJ3GEYJ302	Carbon 3K ohms 1/16W	R207	ERJ3GEYJ912	Carbon 9.1K ohms 1/16W
R120	ERJ3GEYJ272	Carbon 2.7K ohms 1/16W	R209	ERJ3GEYJ203	Carbon 20K ohms 1/16W
R121	ERJ3GEYJ752	Carbon 7.5K ohms 1/16W	R213	ERJ3GEYJ393	Carbon 39K ohms 1/16W
R123	ERJ3GEYJ272	Carbon 2.7K ohms 1/16W	R214	ERJ3GEYJ472	Carbon 4.7K ohms 1/16W
R124	ERJ3GEYJ180	Carbon 18 ohms 1/16W	R217	ERJ3GEYJ473	Carbon 47K ohms 1/16W
R125	ERJ3GEYJ153	Carbon 15K ohms 1/16W	R218	ERJ3GEYJ272	Carbon 2.7K ohms 1/16W
R126	YF2116106JT	Carbon 10M ohms 1/10W	R219	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W
R128	ERJ3GEYJ153	Carbon 15K ohms 1/16W	R220	ERJ3GEYJ102	Carbon 1K ohms 1/16W
R129	ERJ3GEYJ224	Carbon 220K ohms 1/16W	R221	ERJ3GEYJ223	Carbon 22K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
R222	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R310	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R223	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R311	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R224	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R312	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R225,226	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R313	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R227	ERJ3GEYJ431	Carbon	430 ohms 1/16W	R317	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R228	ERJ3GEYJ331	Carbon	330 ohms 1/16W	R318	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R230	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R319	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R231	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R324	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R232	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R328	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R233	ERJ3GEYJ331	Carbon	330 ohms 1/16W	R329	ERJ3GEYJ821	Carbon	820 ohms 1/16W
R235	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R330	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R236,237	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R337	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R239	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R339	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R240	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R500	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R245	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R501	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R246	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R502	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R247	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R505	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R248	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R507	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R249	ERJ3GEYJ105	Carbon	1M ohms 1/16W	R508	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R250	ERJ3GEYJ271	Carbon	270 ohms 1/16W	R509	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R251	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R513	ERJ3GEYJ751	Carbon	750 ohms 1/16W
R252	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R515	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R253	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R516	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R255	ERJ3GEYJ105	Carbon	1M ohms 1/16W	R517	ERJ3GEYJ823	Carbon	82K ohms 1/16W
R256	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R518,519	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R257	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R520	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R259	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R521,522	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W
R260	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R528	YF2116185JT	Carbon	1.8M ohms 1/10W
R263	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R529	ERJ3GEYJ331	Carbon	330 ohms 1/16W
R264	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R531	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R265	ERJ3GEYJ621	Carbon	620 ohms 1/16W	R533	ERJ3GEYJ683	Carbon	68K ohms 1/16W
R267,268	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R534,535	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R269	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R536	ERJ3GEYJ683	Carbon	68K ohms 1/16W
R270	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R537,538	ERJ3GEYJ224	Carbon	220K ohms 1/16W
R271	ERJ3GEYJ184	Carbon	180K ohms 1/16W	R541-544	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R275	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R545	ERJ3GEYJ911	Carbon	910 ohms 1/16W
R276	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R546	ERJ3GEYJ202	Carbon	2K ohms 1/16W
R278	ERJ3GEYJ104	Carbon	100K ohms 1/16W	C11	YW5CH151J5VB	Ceramic	150 pF
R282	ERJ3GEYJ473	Carbon	47K ohms 1/16W	C13	YW5CH560J5VB	Ceramic	56 pF
R285	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C14	YW5CH151J5VB	Ceramic	150 pF
R287,288	ERJ3GEYJ122	Carbon	1.2K ohms 1/16W	C18	YW5CH270J5VB	Ceramic	27 pF
R289	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	C19	YW5CH330J5VB	Ceramic	33 pF
R290,291	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	C21	YW5X103K2VB	Ceramic	0.01 µF
R292	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C25	YW5CH101J5VB	Ceramic	100 pF
R294	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C26	YW5F104Z2VB	Ceramic	0.1 µF
R295	ERJ3GEYJ183	Carbon	18K ohms 1/16W	C28,29	YW5X103K2VB	Ceramic	0.01 µF
R296	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C30	YF400104FZT	Ceramic	0.1 µF
R298	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	C31	YW5X102K5VB	Ceramic	1000 pF
R299,300	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C35	YW5CH331J5VB	Ceramic	330 pF
R302	ERJ3GEYJ221	Carbon	220 ohms 1/16W	C36	YW5F104Z2VB	Ceramic	0.1 µF
R304	ERJ3GEYJ561	Carbon	560 ohms 1/16W				
R306	ERJ3GEY0R00	Carbon	0 ohms 1/16W				
R307	ERJ3GEYJ101	Carbon	100 ohms 1/16W				
R308	ERJ3GEY0R00	Carbon	0 ohms 1/16W				
R309	ERJ3GEYJ474	Carbon	470K ohms 1/16W				

REF.NO.	PART NO.	DESCRIPTION	
C37	YW5X102K5VB	Ceramic	1000 pF
C38	YW5CH331J5VB	Ceramic	330 pF
C40	YW5F473Z2VB	Ceramic	0.047 µF
C43	YW5X103K2VB	Ceramic	0.01 µF
C44,45	YF400104FZT	Ceramic	0.1 µF
C46	YW5X103K2VB	Ceramic	0.01 µF
C47	YF400104FZT	Ceramic	0.1 µF
C48	YW5F104Z2VB	Ceramic	0.1 µF
C50	YW400473XK	Ceramic	0.047 µF
C52	TAJA105M016	Electrolytic	1 µF 16V
C53,55	YW400473XK	Ceramic	0.047 µF
C56,57	YW5F104Z2VB	Ceramic	0.1 µF
C58	YW5X103K2VB	Ceramic	0.01 µF
C59	YW5F104Z2VB	Ceramic	0.1 µF
C61,63	YF400104FZT	Ceramic	0.1 µF
C64,65	YW5X103K2VB	Ceramic	0.01 µF
C66	YW5F104Z2VB	Ceramic	0.1 µF
C67	YF400104FZT	Ceramic	0.1 µF
C69	YW5X103K2VB	Ceramic	0.01 µF
C71	YF400104FZT	Ceramic	0.1 µF
C72	YW5X103K2VB	Ceramic	0.01 µF
C74	YW5X102K5VB	Ceramic	1000 pF
C75,78	YF400224FZT	Ceramic	0.22 µF
C80	YF400104FZT	Ceramic	0.1 µF
C81	YW400473XK	Ceramic	0.047 µF
C82	YF400104FZT	Ceramic	0.1 µF
C83	YW5X102K5VB	Ceramic	1000 pF
C84	YW5F104Z2VB	Ceramic	0.1 µF
C86	YW5X103K2VB	Ceramic	0.01 µF
C87	YW5X102K5VB	Ceramic	1000 pF
C88	YW5CH100J5VB	Ceramic	10 pF
C89	YW5CH470J5VB	Ceramic	47 pF
C92	YF400104FZT	Ceramic	0.1 µF
C94,96	YW5CH620J5VB	Ceramic	62 pF
C99	YW5F104Z2VB	Ceramic	0.1 µF
C100	YW5X103K2VB	Ceramic	0.01 µF
C101	YW5CH360J5VB	Ceramic	36 pF
C102	YW5CH270J5VB	Ceramic	27 pF
C109,110	YW5CH271J5VB	Ceramic	270 pF
C111	YF400104FZT	Ceramic	0.1 µF
C113	YF400104FZT	Ceramic	0.1 µF
C114	YW5X103K2VB	Ceramic	0.01 µF
C118	YF400104FZT	Ceramic	0.1 µF
C123	ECEV1CV100	Electrolytic	10 µF 16V
C124	YWE212F105ZT	Ceramic	1 µF
C125	ECEV0JV220	Electrolytic	22 µF 6.3V
C126	YWE212F105ZT	Ceramic	1 µF
C127	ECST1AY225ZR	Tantalum	2.2 µF 10V
C128	YF400104FZT	Ceramic	0.1 µF
C129	ECEV1EV220	Electrolytic	22 µF 25V
C130	YW5X222K5VB	Ceramic	2200 pF
C131	ECEV1CV220	Electrolytic	22 µF 16V
C132	ECEV1EV220	Electrolytic	22 µF 25V
C133	ECEV1CV220	Electrolytic	22 µF 16V
C134	ECEV1HV010	Electrolytic	1 µF 50V

REF.NO.	PART NO.	DESCRIPTION	
C135	ECEV1EV220	Electrolytic	22 µF 25V
C136	ECEV1CV100	Electrolytic	10 µF 16V
C137	ECEV1EV6R8	Electrolytic	6.8 µF 25V
C139	ECEV0JV220	Electrolytic	22 µF 6.3V
C140	ECEV1EV220	Electrolytic	22 µF 25V
C141	YF400104FZT	Ceramic	0.1 µF
C142	ECEV1HV010	Electrolytic	1 µF 50V
C143	ECEV0JV470S	Electrolytic	47 µF 6.3V
C145	ECEV1EV220	Electrolytic	22 µF 25V
C146	YWE212F105ZT	Ceramic	1 µF
C148	ECEV1EV4R7	Electrolytic	4.7 µF 25V
C149	ECEV1EV220	Electrolytic	22 µF 25V
C150,151	ECEV1EV4R7	Electrolytic	4.7 µF 25V
C152	ECEV0JV101	Electrolytic	100 µF 6.3V
C154	ECEV1HV2R2	Electrolytic	2.2 µF 50V
C155	ECEV1HV3R3SR	Electrolytic	3.3 µF 50V
C156	ECEV1CV100	Electrolytic	10 µF 16V
C160	ECEV0JV470S	Electrolytic	47 µF 6.3V
C170	YWE212F105ZT	Ceramic	1 µF
C171	ECEV1HN2R2	Electrolytic	2.2 µF 50V
C172	YWE212F105ZT	Ceramic	1 µF
C175	YWE212F105ZT	Ceramic	1 µF
C176	YWE212F105ZT	Ceramic	1 µF
C177	ECST1AC336ZR	Tantalum	33 µF 10V
C178	YF400223XKT	Ceramic	0.022 µF
C181	YWE212F105ZT	Ceramic	1 µF
C183	YWE212F105ZT	Ceramic	1 µF
C184	TAJA105M016	Tantalum	1 µF 16V
C185	ECST1AB106	Tantalum	10 µF 10V
C186	ECST0JY106ZR	Tantalum	10 µF 6.3V
C187	ECST1AB106	Tantalum	10 µF 10V
C189,190	YWE212F105ZT	Ceramic	1 µF
C196,197	YWE212F105ZT	Ceramic	1 µF
C198	ECST1AB106	Tantalum	10 µF 10V
C199	ECST0JX106	Tantalum	10 µF 6.3V
C200	ECST1AB106	Tantalum	10 µF 10V
C202	TAJA105M016	Tantalum	1 µF 16V
C204	YW5CH101J5VB	Ceramic	100 pF
C205	YW5F104Z2VB	Ceramic	0.1 µF
C206	YW5X103K2VB	Ceramic	0.01 µF
C208-210	YW5CH050D5VB	Ceramic	5 pF
C211	YF400104FZT	Ceramic	0.1 µF
C212,213	YW5F104Z2VB	Ceramic	0.1 µF
C214	ECST1AY225ZR	Tantalum	2.2 µF 10V
C215	YW5X103K2VB	Ceramic	0.01 µF
C219	ECST1VD106	Tantalum	10 µF 35V
C220	YWE212F105ZT	Ceramic	1 µF
C222	YW5CH330J5VB	Ceramic	33 pF
L7,10	ELJFC150KB	Coil	15 µH
L13	ELJFC8R2MF	Coil	8.2 µH
L14	EIC4EN006E	Coil	
L15	ELJFC8R2MF	Coil	8.2 µH
L19	ELJFB101KB	Coil	100 µH
L21	ELJFC8R2MF	Coil	8.2 µH

REF.NO.	PART NO.	DESCRIPTION
L24	ELJSC330KB	Coil 33 µH
L30,31	ELJFC8R2MF	Coil 8.2 µH
L35	ELJFC8R2MF	Coil 8.2 µH
X1	YWCSTCS419MG	Crystal Oscillator
X2	YWDX17R734	Crystal Oscillator
X3	YWDX14R187	Crystal Oscillator
CF5	ELB4B532	Filter
CF6	YW4FW7250	Filter
CF7	YW4FW7249	Filter
CN1,3	YW31756316	6-pin Connector
CN4	YW525882090	20-pin Connector
CN6	YW525881890	18-pin Connector

ACCESSORY PARTS/PACKAGING PARTS

M51	YWV8QA3217AN	Operating Instructions
M53	YWT20X35C03	Polyethylene Bag
M55	YWV9CA2250AN	Packaging Assy
M57	YWV7SA1450A4	Caution Label

REF.NO.	PART NO.	DESCRIPTION
		1/3"COLOR CCD CAMERA WV-CP214
		MISCELLANEOUS
FB1	YWCP210J1	Flexible Board
F1 <1>	X8A2C20ET0A	Current Fuse 2A 250V
CN101	YWP2270	BNC Connector
E102	YW840522	Insulator Fuse Cover
M1	YW8C-2B	Body Cap
M2	YWV1EB0127A4	Special Screw for FB Lock
M3	YWV3FA0175A3	FB Control Ring
M4	YWV5BA0120A2	Front Escutcheon
M5	YWVAKA1192AN	Optical Head Assy
M6	YWV4JA0479A4	Spring Plate
M7	YWV2CA0386A4	Hold Plate for Spring Plate
M8	YWV4JA0478A4	Spring Coil
M9	YWV2SA2640A3	Front Mounting Angle
M10	YWV2TB0333A3	Mounting Bracket
M11	YWV1KA0128A4	Washer
M12	YWV5EA1337A2	Upper Cover
M13	YWV2HA1168A3	Shield Parts
M17	YWV2KA0874A2	Bottom Cover
M19	YWV5BA0121A3	Rear Escutcheon
M20	YWV2SA2642A3	Rear Mounting Angle
M21	YWV5WA1581A4	Rear Panel
M33	YWV7SA1909A4	Label
M35	YWV7MA0412A4	Fuse Change Label
M36 <1>	YWV7QA3197A4	Main Label
M38	YWV5GA0155A4	Cap for Switch
M39	YWV5GA0156A4	Cap for VR
M40	YFV2NA0084A4	Spacer
M41	YWV2PA0615A4	Insulator

ALC BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB2 (RTL)	YWVKYCP21P5A	Printed Circuit Board Assy
L8	ELJFC8R2MF	Coil 8.2 µH
L9	ELJFCR68MF	Coil 0.68 µH
L11,12	ELJFC8R2MF	Coil 8.2 µH
CN1	AXN420330P	30-pin Connector
CN2	YFD4151N200	ALC 4-pin Connector
CN3	YWS25881890	18-pin Connector

REAR SUB BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB3 (RTL)	YWVKBCP24P4A	Printed Circuit Board Assy
CN1	YWS25882090	20-pin Connector

REAR BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB4 (RTL)	YWVKCCP24P4A	Printed Circuit Board Assy	
IC1	YWM5237ML	IC	
Q1	2SB710-QRS	Transistor	
D1	LN28RPPN	LED	
R1	ERJ3GEYJ751	Carbon	750 ohms 1/16W
R2-6	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R7	ERJ14YJ750	Carbon	75 ohms 1/4W
R8	YF2116222GT	Carbon	2.2K ohms 1/10W
R9	ERJ3GEYJ221	Carbon	220 ohms 1/16W
R10	ERJ3GEYG113	Carbon	11K ohms 1/16W
R11	ERJ3GEYG431	Carbon	430 ohms 1/16W
R12	ERJ3GEYG432	Carbon	4.3K ohms 1/16W
VR1,2	YWST4B203	Variable Resistor	20K ohms
C1	YW5F10422VB	Ceramic	0.1 µF
C2	ECEV0JV101	Electrolytic	100 µF 6.3V
C3	ECEV0JV220	Electrolytic	22 µF 6.3V
C4,5	YF400103XKT	Ceramic	0.01 µF
C6	YWE212F105ZT	Ceramic	1 µF
SW1	YWKSD05S	Slide Switch	
CN1	YW533910890	8-pin Connector	
E2	YF40S1BYF2P	2-pin Terminal Board	
M18	YWLH53	LED Spacer	
M24	YFV2NA0071A4	2-pin Terminal Board Spacer	

POWER BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB5 (RTL)	YWVKYCP24P3A	Printed Circuit Board Assy	
IC1	YWFA5304S	IC	
IC2	YWTA784315	IC	
Q1	2SK2182	FET	
Q2,3	YWPS2501-1KA	Transistor	
D1 <!>	YWD25BA20	Diode	
D2	YWDAN217	Diode	
D3	YWSC2012	Diode	
D4	YWDTZ5.1	Diode	
D7	YWSC80206L	Diode	
VS1	ERZC07DK471U	ZNR	
R1	ERJ14YJ223	Carbon	22K ohms 1/4W
R2	YF2116220JT	Carbon	22 ohms 1/10W
R3	YF2116184JT	Carbon	180K ohms 1/10W
R4	YF2116220JT	Carbon	22 ohms 1/10W
R5	ERJ6GEYJ153	Carbon	15K ohms 1/10W
R6	ERJ6GEYJ202	Carbon	2K ohms 1/10W
R7	ERJ6GEYJ221	Carbon	220 ohms 1/10W
R8	ERJ14YJR51	Carbon	0.5 ohms 1/4W
R9,10	ERJ14YJ112	Carbon	1.1K ohms 1/4W
R11	YF2116152JT	Carbon	1.5K ohms 1/10W
R12	ERJ6GEYJ470	Carbon	47 ohms 1/10W
R13	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R14	YWR1220P390D	Metal	39K ohms
R15	YWR1220P622D	Metal	6.2K ohms
R16	YF2116681JT	Carbon	680 ohms 1/10W
R17	YWR1220P622D	Metal	6.2K ohms
R18	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R19	YWR1220P221D	Metal	220 ohms
R30	ERJ6GEY0R00	Carbon	1 ohms 1/10W
C1 <!>	ECQV1H474JMW	Plastic	0.47 µF
C2-4 <!>	ECQB1103JFW	Plastic	0.01 µF
C5	ECEA1HGE331	Electrolytic	330 µF 50V
C6	ECA1VFQ270	Electrolytic	27 µF 35V
C7	YW400105FZ	Ceramic	1 µF
C8	YF400681CHJT	Ceramic	680 µF 50V
C9	YF400104FZT	Ceramic	0.1 µF
C10	ECEA1HGE3R3	Electrolytic	3.3 µF 50V
C11	YF400104FZT	Ceramic	0.1 µF
C12	YF400103XKT	Ceramic	0.01 µF
C13	YW400105FZ	Ceramic	1 µF
C14,15	ECA1CFQ271	Electrolytic	270 µF 16V
C16	ECA1AFQ181	Electrolytic	180 µF 10V
C17	YF400104FZT	Ceramic	0.1 µF
C18	ECQB1103JFW	Plastic	0.01 µF
C20	ECQV1H104JZ	Plastic	0.1 µF 50V (TF)
L1	YWSU10H07040	Coil	
L2	YWPC7330K	Coil	33 µH
T1 <!>	ETS22BC125AC	Power Transformer	
CN1	YW526630810	8-pin Connector	
E1,2	S-N5057	Fuse Holder	
M25	YWV1KA0181A4	Washer	

MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB6 (RTL)	YWVKYCP21E2A	Printed Circuit Board Assy	
IC2	AN2018S	IC	
IC3	YWTC74VC04F	IC	
IC5	MN3860SA	IC	
IC6	YWCXD2404R	IC	
IC8	AN2145NFHP	IC	
IC9	MN3111H	IC	
IC10	YWLM324DBEL	IC	
IC11	YWNJM3416	IC	
IC16	MN13821R	IC	
IC18	YWPD75064501	IC	
IC20	YWMB88346BEF	IC	
IC21	YWBR93LC46	IC	
IC22	YWMB88346BEF	IC	
IC23	MN73093	IC	
IC25	YWTC7S04F	IC	
IC26	YWSC14569F	IC	
IC27	AN2458SH	IC	
IC28	YWPC5020G070	IC	
IC29	YWSC14566F	IC	
Q1	2SK853	Transistor	
Q2,3	2SK662-PQR	FET	
Q4	2SK853	Transistor	
Q11	2SC4619	Transistor	
Q12	2SC4627	Transistor	
Q13,15	2SC4617	Transistor	
Q16,17	2SC4617	Transistor	
Q19,20	2SC4617	Transistor	
Q23	XN4501	Transistor	
Q26,29	2SA1774	Transistor	
Q30,31	2SA1774	Transistor	
Q32,33	2SC4617	Transistor	
D2	MA132K	Diode	
D7	YWDA121	Diode	
D8-11	MA726	Diode	
D12	MA8100	Diode	
D13	MA8150	Diode	
D14-21	MA372	Diode	
D22-27	YWDA221	Diode	
D28	YWDA121	Diode	
D29	MA726	Diode	
R3	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R19,21	ERJ3GEYJ270	Carbon	27 ohms 1/16W
R24	ERJ3GEYJ270	Carbon	27 ohms 1/16W
R32	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R37	ERJ3GEYJ621	Carbon	620 ohms 1/16W
R38	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R39	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R43	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R44	ERJ3GEYJ202	Carbon	2K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R45	ERJ3GEYJ621	Carbon	620 ohms 1/16W
R46	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R47	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W
R56	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R57,58	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R59	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R60	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R61	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R62,65	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R66	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R67	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R68	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R70	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R72	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R73	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
R74	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R75	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R76	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W
R77	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
R81	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R84	ERJ3GEYJB21	Carbon	820 ohms 1/16W
R87	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R88,89	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R92	ERJ3GEYJ154	Carbon	150K ohms 1/16W
R93	ERJ3GEYJ514	Carbon	510K ohms 1/16W
R94	ERJ3GEYJ121	Carbon	120 ohms 1/16W
R95	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W
R97	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R103	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R108	ERJ3GEYJ432	Carbon	4.3K ohms 1/16W
R110-112	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R113	ERJ3GEYJ623	Carbon	62K ohms 1/16W
R114,116	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R117	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R118	ERJ3GEYJ302	Carbon	3K ohms 1/16W
R120	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R121	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W
R123	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R124	ERJ3GEYJ180	Carbon	18 ohms 1/16W
R125	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R126	YF2116106JT	Carbon	10M ohms 1/10W
R128	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R129	ERJ3GEYJ224	Carbon	220K ohms 1/16W
R132	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R133	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R138	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R141	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R142	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R143	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R145	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R146	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R147	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R148	ERJ3GEYJ391	Carbon	390 ohms 1/16W
R150	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R151	ERJ3GEYJ273	Carbon	27K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
R153	ERJ3GEYJ821	Carbon	820 ohms 1/16W	R240	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R157-159	ERJ3GEYJ273	Carbon	27K ohms 1/16W	R245	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R160	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R246	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R161	ERJ3GEYJ393	Carbon	39K ohms 1/16W	R247	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R162	ERJ3GEYJ180	Carbon	18 ohms	R248	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R163	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R249	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R164	ERJ3GEYJ154	Carbon	150K ohms 1/16W	R250	ERJ3GEYJ271	Carbon	270 ohms 1/16W
R165	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R251	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R166	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R252	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R167,168	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R253	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R170	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R255	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R171	ERJ3GEYJ563	Carbon	56K ohms 1/16W	R256	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R172	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R257	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R173	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R259	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R174	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R260	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R175	ERJ3GEYJ393	Carbon	39K ohms 1/16W	R263	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R179	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W	R264	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R182	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R265	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R183	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R267,268	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R185	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R269	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R186,187	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R270	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R188	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R271	ERJ3GEYJ184	Carbon	180K ohms 1/16W
R189	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R275	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R190	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R276	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R191	ERJ3GEYJ684	Carbon	680K ohms 1/16W	R278	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R193	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R279,280	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R194	ERJ3GEYJ433	Carbon	43K ohms 1/16W	R282	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R196,198	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R283	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R200	ERJ3GEYJ203	Carbon	20K ohms 1/16W	R285	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R201	ERJ3GEYJ273	Carbon	27K ohms 1/16W	R287,288	ERJ3GEYJ122	Carbon	1.2K ohms 1/16W
R202	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W	R289	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R203	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R290,291	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W
R205	ERJ3GEYJ273	Carbon	27K ohms 1/16W	R292	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R207	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W	R294	ERJ3GEYJ511	Carbon	510 ohms 1/16W
R209	ERJ3GEYJ203	Carbon	20K ohms 1/16W	R295	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R213	ERJ3GEYJ393	Carbon	39K ohms 1/16W	R297	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R214	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R298	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R217	ERJ3GEYJ473	Carbon	47K ohms 1/16W	R299,300	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R218	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R301	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R219	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R302	ERJ3GEYJ221	Carbon	220 ohms 1/16W
R220	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R304	ERJ3GEYJ561	Carbon	560 ohms 1/16W
R221	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R306	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R222	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R307	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R223	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R308	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R224	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R309	ERJ3GEYJ474	Carbon	470K ohms 1/16W
R225,226	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R310	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R227	ERJ3GEYJ681	Carbon	680 ohms 1/16W	R311	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R228	ERJ3GEYJ331	Carbon	330 ohms 1/16W	R313	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R230	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R314	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R231	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R317	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R232	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R318	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R233	ERJ3GEYJ821	Carbon	820 ohms 1/16W	R319	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R235	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R320	ERJ3GEYJ823	Carbon	82K ohms 1/16W
R236,237	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R321	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R239	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R322	ERJ3GEYJ105	Carbon	1M ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
R323	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	C50	YW400473XK	Ceramic	0.047 µF
R324	ERJ3GEYJ105	Carbon	1M ohms 1/16W	C52	TAJA105M016	Electrolytic	1 µF 16V
R325	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C53,55	YW400473XK	Ceramic	0.047 µF
R326-328	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C56,57	YW5F104Z2VB	Ceramic	0.1 µF
R329	ERJ3GEYJ821	Carbon	820 ohms 1/16W	C58	YW5X103K2VB	Ceramic	0.01 µF
R330	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C59	YW5F104Z2VB	Ceramic	0.1 µF
R336	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	C61,63	YF400104FZT	Ceramic	0.1 F
R337	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C64,65	YW5X103K2VB	Ceramic	0.01 µF
R338	ERJ3GEYJ302	Carbon	3K ohms 1/16W	C66	YW5F104Z2VB	Ceramic	0.1 µF
R339	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C67	YF400104FZT	Ceramic	0.1 µF
R500	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C69	YW5X103K2VB	Ceramic	0.01 µF
R501	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C71	YF400104FZT	Ceramic	0.1 µF
R502	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C72	YW5X103K2VB	Ceramic	0.01 µF
R505	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C74	YW5X102K5VB	Ceramic	1000 pF
R507	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C75,78	YF400224FZT	Ceramic	0.22 µF
R508	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C80	YF400104FZT	Ceramic	0.1 µF
R509	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C81	YW400473XK	Ceramic	0.047 µF
R513	ERJ3GEYJ751	Carbon	750 ohms 1/16W	C82	YF400104FZT	Ceramic	0.1 µF
R515	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C83	YW5X102K5VB	Ceramic	1000 pF
R516	ERJ3GEYJ563	Carbon	56K ohms 1/16W	C84	YW5F104Z2VB	Ceramic	0.1 µF
R517	ERJ3GEYJ823	Carbon	82K ohms 1/16W	C86	YW5X103K2VB	Ceramic	0.01 µF
R518,519	ERJ3GEYJ105	Carbon	1M ohms 1/16W	C87	YW5X102K5VB	Ceramic	1000 pF
R520	ERJ3GEYJ104	Carbon	100K ohms 1/16W	C88	YW5CH100J5VB	Ceramic	10 pF
R521,522	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W	C89	YW5CH470J5VB	Ceramic	47 pF
R528	YF2116185JT	Carbon	1.8M ohms 1/10W	C92	YF400104FZT	Ceramic	0.1 µF
R529	ERJ3GEYJ331	Carbon	330 ohms 1/16W	C94,96	YW5CH330J5VB	Ceramic	33 pF
R531	ERJ3GEYJ105	Carbon	1M ohms 1/16W	C99	YW5F104Z2VB	Ceramic	0.1 µF
R533	ERJ3GEYJ683	Carbon	68K ohms 1/16W	C100	YW5X103K2VB	Ceramic	0.01 µF
R534,535	ERJ3GEYJ273	Carbon	27K ohms 1/16W	C101	YW5CH360J5VB	Ceramic	36 pF
R536	ERJ3GEYJ683	Carbon	68K ohms 1/16W	C102	YW5CH270J5VB	Ceramic	27 pF
R537,538	ERJ3GEYJ224	Carbon	220K ohms 1/16W	C105	YW5CH101J5VB	Ceramic	100 pF
R541-544	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C106	YW5F104Z2VB	Ceramic	0.1 F
R545	ERJ3GEYJ911	Carbon	910 ohms 1/16W	C107,108	YW5CH331J5VB	Ceramic	330 pF
R546	ERJ3GEYJ202	Carbon	2K ohms 1/16W	C109,110	YW5CH271J5VB	Ceramic	270 pF
C11	YW5CH151J5VB	Ceramic	150 pF	C111,113	YF400104FZT	Ceramic	0.1 µF
C13	YW5CH560J5VB	Ceramic	56 pF	C114	YW5X103K2VB	Ceramic	0.01 µF
C14	YW5CH151J5VB	Ceramic	150 pF	C115	YW400393XKT	Ceramic	0.039 µF
C18	YW5CH270J5VB	Ceramic	27 pF	C118,119	YF400104FZT	Ceramic	0.1 µF
C19	YW5CH330J5VB	Ceramic	33 pF	C123	ECEV1CV100	Electrolytic	10 µF16V
C21	YW5X103K2VB	Ceramic	0.01 µF	C124	YWE212F105ZT	Ceramic	1 µF
C25	YW5CH101J5VB	Ceramic	100 pF	C125	ECEV0JV220	Electrolytic	22 µF 6.3V
C26	YW5F104Z2VB	Ceramic	0.1 µF	C126	YWE212F105ZT	Ceramic	1 µF
C28,29	YW5X103K2VB	Ceramic	0.01 µF	C127	ECST1AY225ZR	Electrolytic	2.2 µF 10V
C30	YF400104FZT	Ceramic	0.1 µF	C128	YF400104FZT	Ceramic	0.1 µF
C31	YW5X102K5VB	Ceramic	1000 pF	C129	ECEV1EV220	Electrolytic	22 µF 25V
C35	YW5CH331J5VB	Ceramic	330 pF	C130	YW5X222K5VB	Ceramic	2200 pF
C36	YW5F104Z2VB	Ceramic	0.1 µF	C131	ECEV1CV220	Electrolytic	22 µF 16V
C37	YW5X102K5VB	Ceramic	1000 pF	C132	ECEV1EV220	Electrolytic	22 µF 25V
C38	YW5CH331J5VB	Ceramic	330 pF	C133	ECEV1CV220	Electrolytic	22 µF 16V
C40	YW5F473Z2VB	Ceramic	0.047 µF	C134	ECEV1HV010	Electrolytic	1 µF 50V
C43	YW5X103K2VB	Ceramic	0.01 µF	C135	ECEV1EV220	Electrolytic	22 µF 25V
C44,45	YF400104FZT	Ceramic	0.1 µF	C136	ECEV1CV100	Electrolytic	10 µF 16V
C46	YW5X103K2VB	Ceramic	0.01 µF	C137	ECEV1EV6R8	Electrolytic	6.8 µF 25V
C47	YF400104FZT	Ceramic	0.1 µF	C139	ECEV0JV220	Electrolytic	22 µF 6.3V
C48	YW5F104Z2VB	Ceramic	0.1 µF	C140	ECEV1EV220	Electrolytic	22 µF 25V

REF.NO.	PART NO.	DESCRIPTION
C141	YF400104FZT	Ceramic 0.1 µF
C142	ECEV1HV010	Electrolytic 1 µF 50V
C143	ECEV0JV470S	Electrolytic 47 µF 6.3V
C145	ECEV1EV220	Electrolytic 22 µF 25V
C146	YWE212F105ZT	Ceramic 1 µF
C148	ECEV1EV4R7	Electrolytic 4.7 µF 25V
C149	ECEV1EV220	Electrolytic 22 µF 25V
C150,151	ECEV1EV4R7	Electrolytic 4.7 µF 25V
C152	ECEV0JV101	Electrolytic 100 µF 6.3V
C154	ECEV1HV2R2	Electrolytic 2.2 µF 50V
C155	ECEV1HV3R3SR	Electrolytic 3.3 µF 50V
C156	ECEV1CV100	Electrolytic 10 µF 16V
C160	ECEV0JV470S	Electrolytic 47 µF 6.3V
C170	YWE212F105ZT	Ceramic 1 µF
C171	ECEV1HN2R2	Electrolytic 2.2 µF 50V
C172	YWE212F105ZT	Ceramic 1 µF
C175,176	YWE212F105ZT	Ceramic 1 µF
C177	ECST1AC336ZR	Tantalum 33 µF 10V
C178	YF400223XKT	Ceramic 0.022 µF
C181,183	YWE212F105ZT	Ceramic 1 µF
C184	TAJA105M016	Tantalum 1 µF 16V
C185	ECST1AB106	Tantalum 10 µF 10V
C186	ECST0JY106ZR	Tantalum 10 µF 6.3V
C187	ECST1AB106	Tantalum 10 µF 10V
C189,190	YWE212F105ZT	Ceramic 1 µF
C196,197	YWE212F105ZT	Ceramic 1 µF
C198	ECST1AB106	Tantalum 10 µF 10V
C199	ECST0JX106	Tantalum 10 µF 6.3V
C200	ECST1AB106	Tantalum 10 µF 10V
C202	TAJA105M016	Tantalum 1 µF 16V
C203	ECST1AY225ZR	Tantalum 2.2 µF 10V
C204	YW5CH101J5VB	Ceramic 100 pF
C205	YW5F104Z2VB	Ceramic 0.1 µF
C206	YW5X103K2VB	Ceramic 0.01 µF
C208-210	YW5CH050D5VB	Ceramic 5 pF
C211	YF400104FZT	Ceramic 0.1 µF
C212,213	YW5F104Z2VB	Ceramic 0.1 µF
C214	ECST1AY225ZR	Tantalum 2.2 µF 10V
C215	YW5X103K2VB	Ceramic 0.01 µF
C219	ECST1VD106	Tantalum 10 µF 35V
C220	YWE212F105ZT	Ceramic 1 µF
C221	YW5CH470J5VB	Ceramic 47 pF
C222	YW5CH330J5VB	Ceramic 33 pF
L7,10	ELJFC150KB	Coil 15 µH
L13	ELJFC8R2MF	Coil 8.2 µH
L14	EIC4EN006E	Coil
L15	ELJFC8R2MF	Coil 8.2 µH
L19	ELJFB101KB	Coil 100 µH
L21	ELJFC8R2MF	Coil 8.2 µH
L24	ELJSC330KB	Coil

REF.NO.	PART NO.	DESCRIPTION
L30,31	ELJFC8R2MF	Coil 8.2 µH
L33	EIC4EJ003E	Coil
L35	ELJFC8R2MF	Coil 8.2 µH
X1	YWCSTCS419MG	Crystal Oscillator
X2	YWDX17R734	Crystal Oscillator
X3	YWDX14R187	Crystal Oscillator
CF5	ELB4B532	Filter
CF6	YW4FW7250	Filter
CF7	YW4FW7249	Filter
CN1,3	YW31756316	6-pin Connector
CN4	YW533072091	20-pin Connector
CN6	YW533071891	18-pin Connector

ACCESSORY PARTS/PACKAGING PARTS

M51	YWV8QA3217AN	Operating Instructions
M53	YWT20X35C03	Polyethylene Bag
M55	YWV9CA2187AN	Packaging Assy
M57	YWV7SA1450A4	Packaging Label

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ORDER NO.AVS9409910C8

Service Manual

Supplement-1

Colour CCTV Cameras

WV-CP210/WV-CP212
WV-CP214

Please file and use this supplement-1 service manual together with original service manual for Order No. AVS9402820C8.

LIST OF MODIFICATION

■ REAR BOARD FOR WV-CP214

- R13, R14, R15, C7, C8, C9, C10, L1 and L2 have been added to improve performance.

■ MAIN BOARD

- IC3, IC23, Q12, R117 and R163 have been changed to improve reliability.
- R547 and R548 have been added to improve reliability.

■ REPLACEMENT PARTS LIST

- The parts numbers given emphasis are shown difference on the previous list in present.

Panasonic

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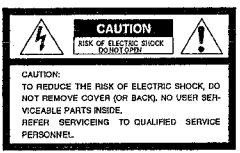
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service literature by anyone else could result in serious injury or death.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICEING TO QUALIFIED SERVICE PERSONNEL.

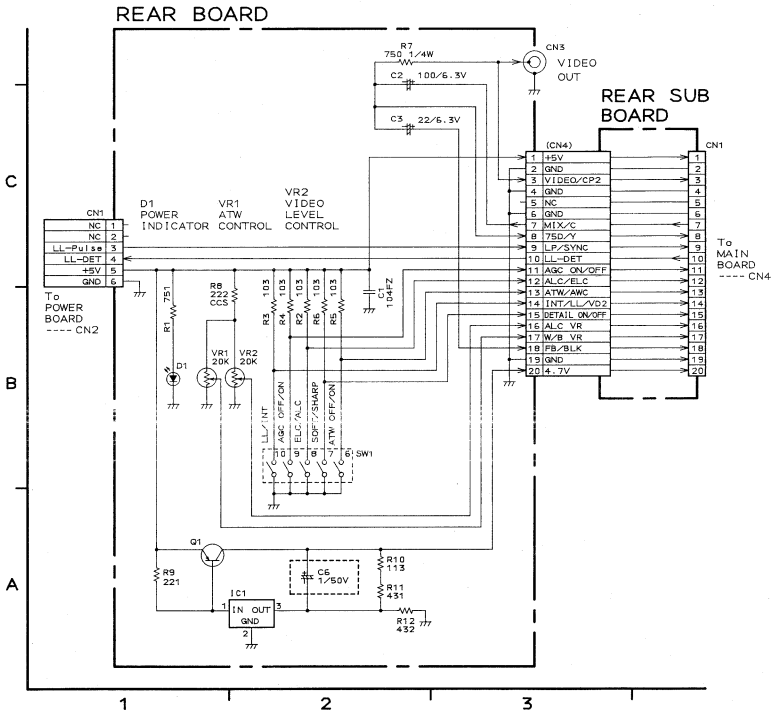
This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this has been included.
Therefore, it should be read carefully in order to avoid any problems.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are indicated by the " ⚠ " mark on the schematic diagram and the replacement parts list It is essential that these critical parts should be replaced with manufacture's specified parts to prevent shock, fire, or other hazards
Do not modify the original design without permission of manufacture

SCHEMATIC DIAGRAM OF REAR BOARD (WV-CP210)



Note: The value indicated in schematic diagram should be read as follows:

□ □ □
- Multiplier (0 - 5)
- 2nd. Significant Digit (0 - 9)
- 1st. Significant Digit (1 - 9)

<Example>

For Resistor:
- 330 ⟶ 33 x 10^0 = 33Ω
- 561 ⟶ 56 x 10^1 = 560Ω
- 123 ⟶ 12 x 10^3 = 12kΩ
- 0R00 = 0 Ω

For Capacitor:
- 820 ⟶ 82 x 10^0 = 82pF
- 102 ⟶ 10 x 10^2 = 1000pF = 0.001µF
- 104 ⟶ 10 x 10^4 = 100000pF = 0.1µF

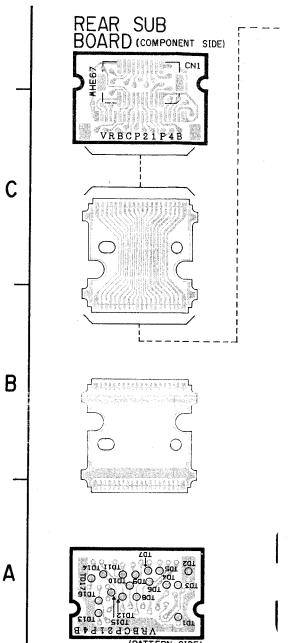
The suffix attached to capacitance indicates a type of capacitor.

<Index>

REAR BOARD

IC1	A2
Q1	A1
D1	B1

CONDUCTOR VIEW OF



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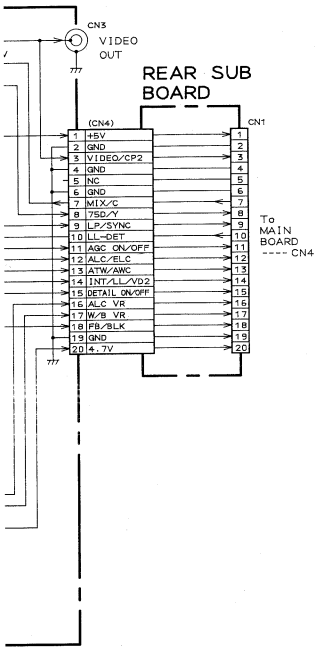
REAR BOARD

IC1	A2
Q1	A2
D1	A3

ARD (WV-CP210)



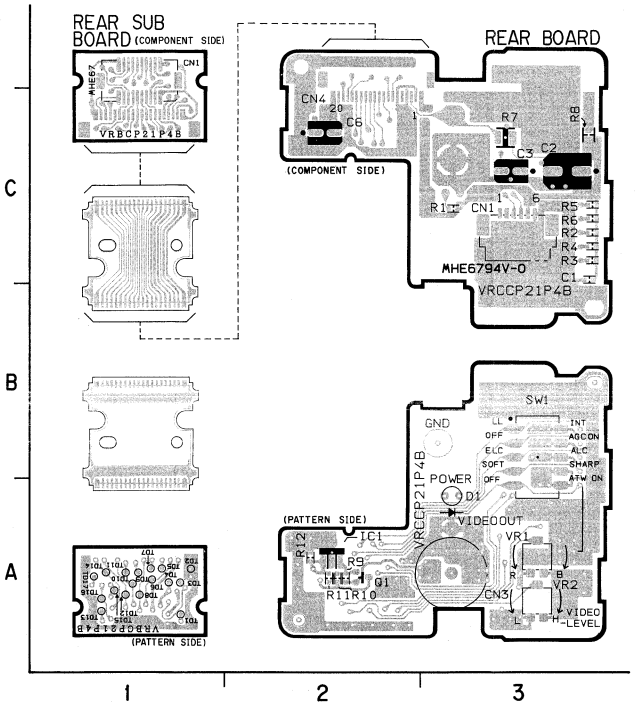
<Index>

REAR BOARD

= 82pF
= 1000pF = 0.001μF
= 100000pF = 0.1μF
d to capacitance indicates

IC1	A2
Q1	A1
D1	B1

CONDUCTOR VIEW OF REAR BOARD (WV-CP210)



<Index>

REAR BOARD

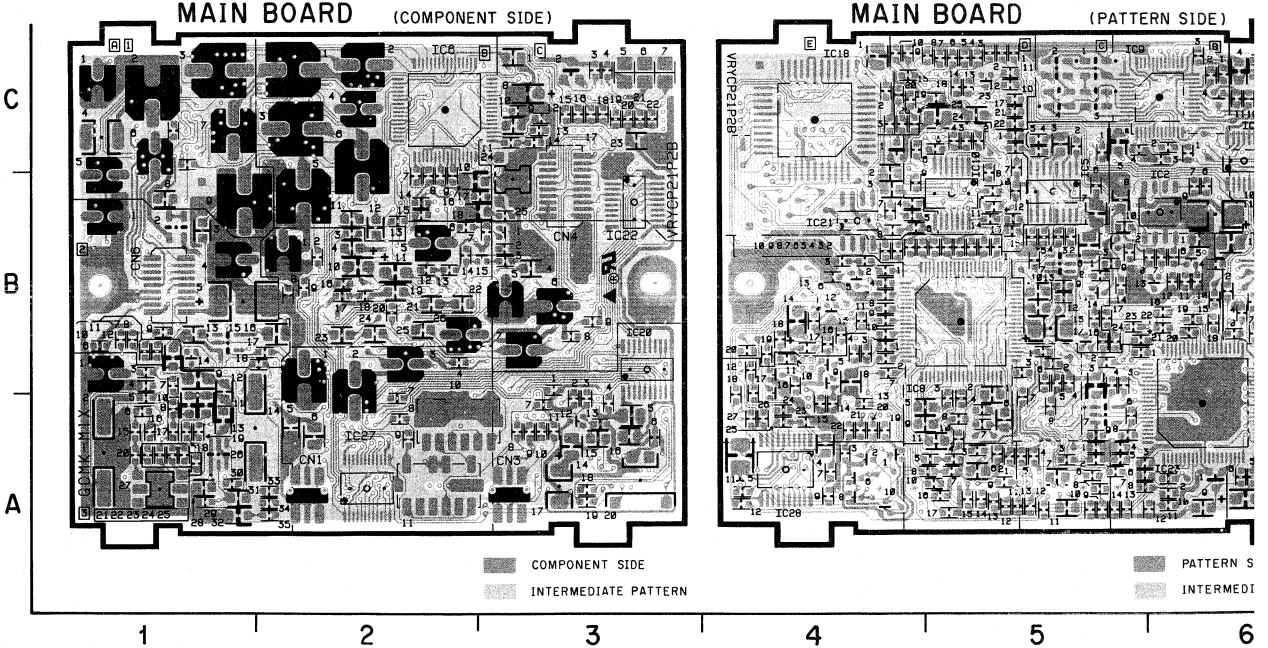
IC1	A2
Q1	A2
D1	A3

CONDUCTOR VIEW OF MAIN BOARD

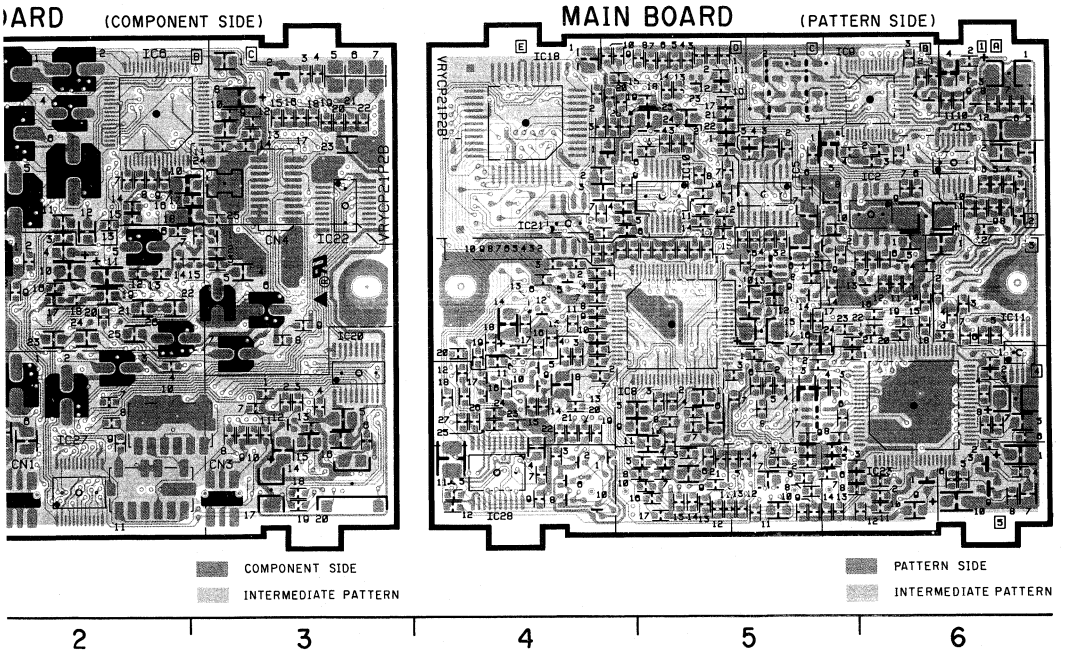
<Index>

MAIN BOARD
Component side parts are follows.

Ref.No	Index	Ref.No	Index	Ref.No	Index
IC6	C2	R248	3-C-1	C134	2-B-5
IC16	1-C-2	R249	1-C-4	C135	1-B-1
IC20	B3	R256	3-C-11	C136	3-A-1
IC22	B3	R260	3-A-33	C137	1-A-1
IC26	2-A-15	R263	3-C-8	C139	1-B-4
IC27	A2	R264	3-C-13	C140	1-A-9
IC29	3-A-26	R269	3-A-35	C142	2-C-5
Q17	2-B-15	R278	3-C-10	C143	3-B-1
Q26	2-C-1	R282	3-C-9	C145	1-B-6
Q31	3-C-12	R296	3-A-19	C146	2-C-4
D14	1-B-18	R297	3-A-16	C148	1-A-5
D15	1-B-16	R298	2-A-18	C149	1-B-3
D17	3-A-32	R301	2-A-17	C150	2-A-1
D18	3-A-11	R311	3-A-29	C151	1-A-6
D19	3-A-10	R312	3-A-18	C152	1-A-2
D28	2-A-14	R322	3-A-6	C154	3-B-3
R43	2-B-8	R325	3-A-15	C155	2-C-6
R64	1-B-9	R326	3-A-24	C156	2-B-26
R66	2-B-9	R327	3-A-25	C160	3-B-2
R67	2-B-16	R331	3-A-4	C170	1-B-23
R75	2-B-2	R507	1-B-7	C171	2-C-7
R89	1-B-17	R516	1-B-14	C172	2-B-24
R92	2-A-11	R517	1-B-15	C178	2-A-3
R93	2-A-8	R519	1-C-9	C183	1-C-1
R114	2-A-6	R526	3-A-12	C184	2-B-10
R126	2-B-4	R530	1-C-11	C189	1-C-23
R128	2-B-17	R532	1-C-12	C190	3-C-16
R138	2-B-6	R539	3-A-22	C196	3-B-5
R142	2-B-20	R547	1-A-10	C197	3-A-28
R145	2-B-3	C35	1-C-25	C198	3-C-17
R146	2-B-7	C43	2-B-18	C207	1-B-8
R147	1-B-13	C47	1-C-10	C211	3-A-31
R148	2-C-3	C48	2-A-10	C214	3-A-9
R150	2-C-2	C50	2-B-19	C222	2-C-9
R153	3-B-9	C52	2-B-11	C223	1-A-11
R164	2-A-7	C53	2-B-21	L14	1-C-24
R166	2-B-14	C55	2-B-22	L19	1-A-4
R168	3-B-7	C67	2-B-25	L21	3-C-5
R174	3-B-4	C96	3-A-34	L30	2-A-16
R179	3-C-7	C106	3-A-20	L31	3-B-6
R203	3-B-8	C107	3-A-21	L33	3-A-27
R207	2-C-8	C108	3-A-23	L35	3-C-14
R214	1-C-22	C113	3-C-15	X1	1-C-5
R217	1-C-3	C115	2-A-13	X2	3-A-14
R219	1-C-15	C123	2-A-4	CF5	3-C-20
R221	1-C-16	C124	1-B-12	CF6	3-B-10
R222	1-C-18	C125	2-B-1	CF7	3-B-11
R223	1-C-20	C126	1-B-11		
R224	1-C-17	C127	1-C-8		
R225	1-C-19	C129	1-A-3		
R226	1-C-21	C130	2-A-9		
R245	3-C-4	C131	1-A-7		
R246	3-C-2	C132	1-B-5		
R247	3-C-3	C133	1-B-2		



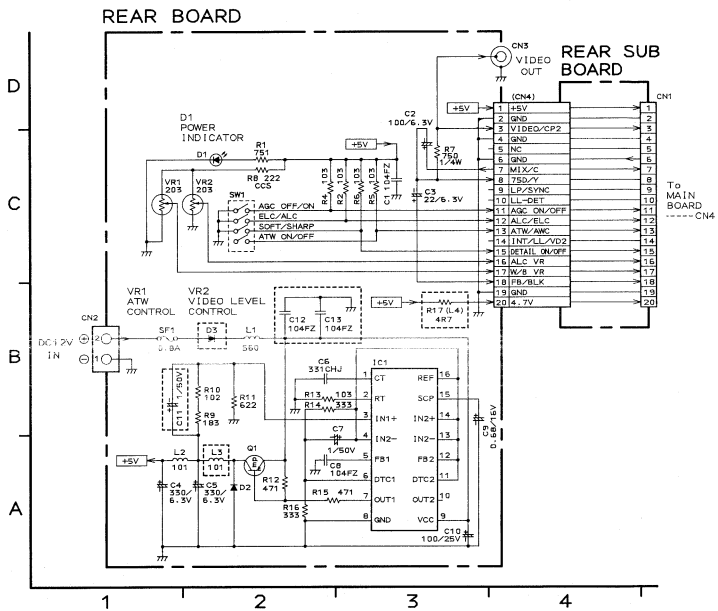
CONDUCTOR VIEW OF MAIN BOARD



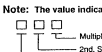
MAIN BOARD
Pattern side parts are follows.

Ref.No	Index	Ref.No	Index	Ref.No	Index	Ref.No	Index	Ref.No	Index
IC2	B6	R60	1-D-11	R189	3-E-4	R319	3-B-16	C72	3-E-10
IC3	C6	R61	3-B-9	R190	5-D-7	R320	5-A-2	C74	5-C-3
IC5	B5	R62	1-D-16	R191	3-E-13	R321	3-A-8	C75	5-C-7
IC8	B4	R68	1-D-13	R193	5-D-10	R323	5-A-8	C78	5-C-11
IC9	C5	R70	2-D-15	R194	4-D-2	R337	5-E-11	C80	4-D-5
IC10	B5	R72	2-D-1	R196	5-D-8	R339	5-E-12	C81	5-D-6
IC11	B6	R73	2-D-7	R198	5-D-2	R500	1-D-4	C82	4-D-9
IC18	C4	R74	1-D-21	R200	4-D-3	R501	1-D-3	C83	5-C-12
IC21	B4	R76	3-C-2	R201	3-E-8	R502	1-D-6	C84	5-D-3
IC23	A6	R77	2-D-10	R202	3-E-18	R505	1-D-5	C86	4-E-7
IC25	4-B-7	R81	3-A-3	R205	3-E-9	R508	3-E-19	C87	3-E-2
IC28	A4	R84	2-D-16	R209	3-E-11	R509	4-E-11	C88	5-D-13
Q1	2-E-1	R87	2-D-13	R213	3-E-15	R513	4-E-26	C89	4-E-16
Q3	5-B-1	R88	2-D-2	R218	5-D-9	R515	2-B-7	C92	5-E-4
Q4	5-A-9	R94	2-C-4	R220	3-E-6	R518	1-D-26	C94	4-B-3
Q11	3-B-5	R95	3-C-3	R227	4-E-2	R520	2-E-4	C99	5-C-9
Q12	3-B-13	R97	3-C-7	R228	5-D-15	R521	2-E-6	C100	5-B-12
Q13	3-B-3	R103	1-D-18	R230	5-D-11	R522	2-E-5	C101	5-B-4
Q15	3-C-17	R108	1-D-9	R231	4-E-15	R533	4-C-2	C102	5-C-1
Q16	3-C-11	R110	1-D-10	R232	3-E-3	R534	4-C-4	C105	3-A-4
Q18	1-A-9	R111	3-C-9	R233	5-D-1	R535	4-E-6	(R105)	
Q19	3-E-5	R112	1-D-15	R235	5-C-5	R536	3-E-17	C111	3-B-1
Q20	5-E-2	R113	3-D-1	R236	5-C-13	R537	2-D-8	C118	5-B-9
Q23	3-C-6	R116	1-D-20	R237	5-D-12	R538	2-D-5	C119	5-A-7
Q29	4-E-10	R117	3-A-6	R239	5-D-14	R540	1-B-1	C128	2-E-3
Q30	4-E-17	R118	1-E-3	R240	3-E-16	R544	4-E-4	C141	2-E-2
Q32	4-E-12	R120	1-D-8	R250	4-E-21	R545	4-E-14	C153	2-A-1
Q33	4-E-5	R121	1-E-2	R251	4-E-25	R546	4-E-3	C175	2-B-8
D2	3-E-12	R123	1-D-7	R252	4-E-22	C11	2-A-11	C176	2-A-2
D7	1-D-12	R124	1-A-2	R253	4-E-20	C13	2-A-6	C177	2-B-9
D8	1-C-2	R125	3-D-3	R255	4-B-4	C14	2-A-9	C181	1-D-23
D9	1-C-1	R129	2-D-14	R257	5-C-6	C18	3-C-16	C185	3-C-15
D10	1-C-4	R132	4-C-5	R259	5-B-8	C19	3-B-17	C186	3-E-14
D11	1-C-3	R133	3-D-4	R265	4-B-6	C21	3-C-4	C187	1-A-1
D12	1-A-4	R141	3-D-6	R270	5-C-10	C25	1-D-14	C198	5-E-5
D13	2-B-5	R143	3-D-5	R271	5-B-11	C26	3-C-5	C202	5-A-10
D16	4-B-5	R151	4-C-6	R276	5-B-2	C28	2-C-6	C203	5-A-1
D22	1-B-4	R157	4-C-8	R279	5-B-6	C29	2-C-2	C204	4-E-23
D23	5-E-6	R158	2-E-8	R280	5-B-14	C30	2-C-3	C205	2-D-9
D24	5-E-10	R159	2-E-7	R283	5-C-8	C31	2-C-5	C206	2-A-4
D25	5-E-5	R160	4-C-1	R285	5-B-10	C36	2-C-1	C208	2-A-12
D26	5-E-1	R161	3-D-7	R287	5-B-5	C37	1-D-25	C209	2-A-7
D27	1-A-3	R162	2-C-1	R288	5-C-2	C38	2-D-3	C210	2-A-3
R3	1-A-12	R163	2-D-12	R289	5-E-7	C40	3-A-5	C212	4-E-18
R19	2-A-10	R165	3-D-8	R290	4-B-9	C44	3-C-10	C213	4-E-27
R21	2-A-8	R167	3-A-7	R291	4-B-8	C45	3-C-13	(R548)	
R24	2-A-5	R170	3-D-10	R293	4-B-2	C46	3-D-2	L7	2-C-7
R32	3-B-6	R171	2-D-11	R295	5-E-9	C56	2-B-3	L10	3-C-1
R37	3-B-10	R172	3-D-9	R302	3-B-18	C57	2-B-4	L13	1-D-24
R38	3-B-8	R173	4-C-7	R304	5-A-6	C58	4-C-3	L15	1-E-1
R39	3-B-7	R175	3-E-1	R306	4-A-1	C59	2-B-2	L24	4-E-9
R44	3-B-11	R180	1-A-8	R307	3-B-20	C61	4-D-6		
R45	3-B-12	R182	1-A-5	R308	3-B-15	C62	1-A-7		
R46	3-A-2	R183	5-D-4	R309	5-A-5	C63	4-D-1		
R47	2-B-10	R184	1-A-6	R310	4-B-1	C64	4-D-8		
R56	3-B-24	R185	4-E-14	R313	3-B-21	C65	5-D-17		
R57	3-C-14	R186	5-D-5	R314	5-A-4	C66	5-C-4		
R58	3-B-14	R187	5-D-16	R317	3-B-19	C69	4-D-10		
R59	3-C-8	R188	3-E-7	R318	3-A-2	C71	4-D-11		

SCHEMATIC DIAGRAM OF REAR BOARD (WV-CP212)



Note: The value indicated in schematic diagram should be read as follows:



<Example>

For Resistor:

330 ⟶ 33×10^0 = 33Ω
561 ⟶ 56×10^1 = 560Ω
123 ⟶ 12×10^3 = 12kΩ
0R00 = 0Ω

For Capacitor:

820 ⟶ 82×10^0 = 82pF
102 ⟶ 10×10^2 = 1000pF = 0.001μF
104 ⟶ 10×10^4 = 100000pF = 0.1μF

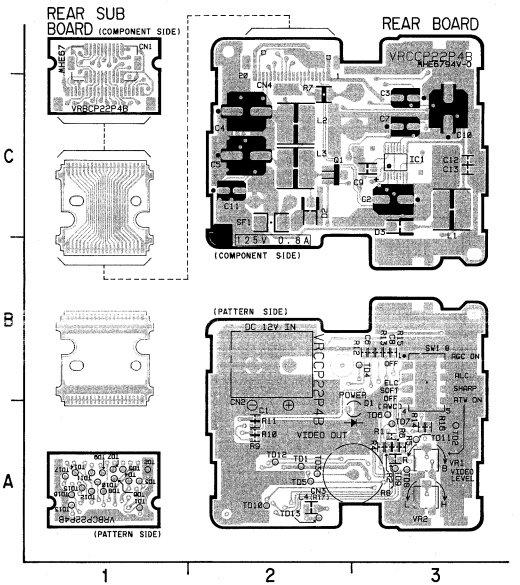
The suffix attached to capacitance indicates a type of capacitor.

<Index>

REAR BOARD

IC1	B3
Q1	A2
D1	C2
D2	A2
D3	B2

CONDUCTOR VIEW OF REAR BOARD (WV-CP212)



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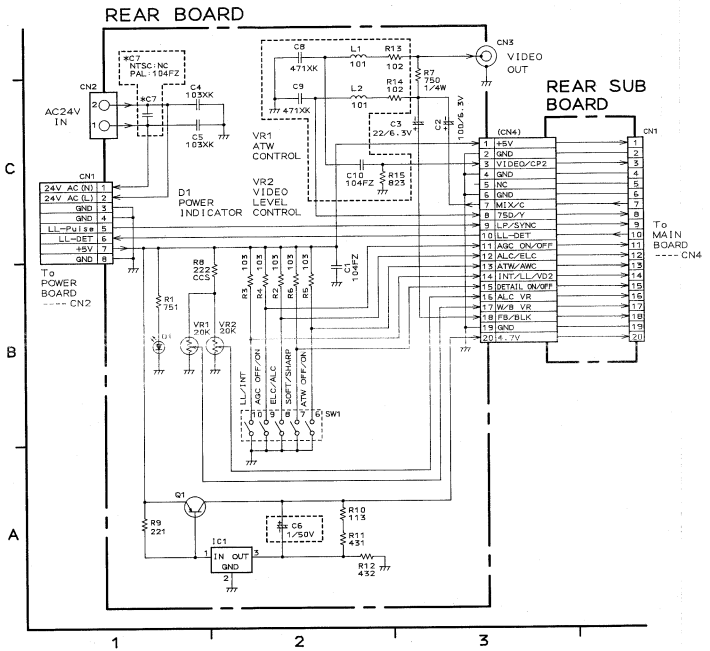
REAR BOARD

IC1	C3
Q1	C2
D1	A3
D2	C2
D3	C3

SCHEMATIC DIAGRAM OF REAR BOARD (WV-CP214)



Note: The value indicated in schematic diagram should be read as follows:

□ □ □
- Multiplier (0 - 5)
- 2nd. Significant Digit (0 - 9)
- 1st. Significant Digit (1 - 9)

<Example>

For Resistor:

330 ⟶ 33 x 10^0 = 33Ω
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102 ⟶ 10 x 10^2 = 1000pF = 0.001μF
104 ⟶ 10 x 10^4 = 100000pF = 0.1μF

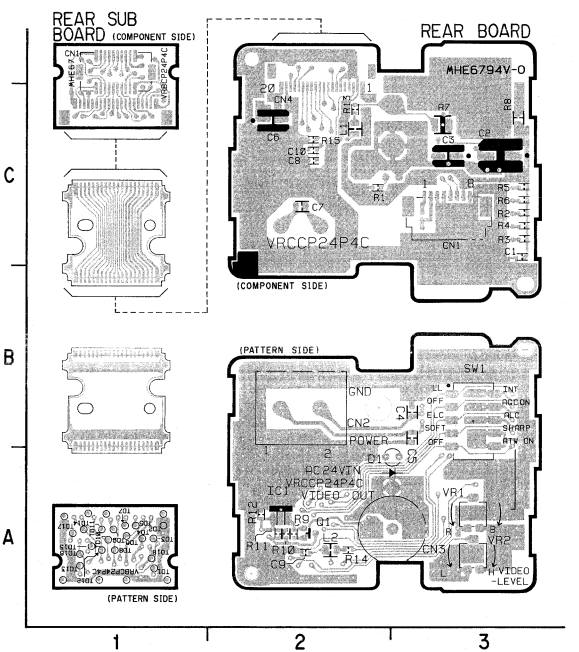
The suffix attached to capacitance indicates a type of capacitor.

<Index>

REAR BOARD

IC1	A2
Q1	A1
D1	B1

CONDUCTOR VIEW OF REAR BOARD (WV-CP214)



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REAR BOARD

IC1	A2
Q1	A2
D1	A2

REPLACEMENT PARTS LIST

Important Notice

1. Components identified by "<!>" mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. RTL : Retention Time Limited,

REF.NO.	PART NO.	DESCRIPTION
1/3"COLOUR CCD CAMERA WV-CP210		
MISCELLANEOUS		
FB1	**YWCP210/1A**	**Flexible Board**
F1 <!>	XBA2C04ET0A	Current Fuse 0.4A 250V
CN101	YWP2270	BNC Connector
CN102	YWVAR2	2-pin Connector
E101 <!>	YWKP4819D5XG	Power Cord for WV-CP210/G
	YWKP551SXA	Power Cord for WV-CP210/A
	YWKP610SXB	Power Cord for WV-CP210/B
E102	YWB40522	Insulator Fuse Cover
E110	YW-BCG-EM01	Earth Lug
M1	YWBC-2B	Body Cap
M2	YWV1EB0127A4	Special Screw for FB Lock
M3	YWV3FA0175A3	FB Control Ring
M4	YWV5BA0120A2	Front Escutcheon
M5	YWVAKA1192AN	Optical Head Assy
M6	YWV4JA0479A4	Spring Plate
M7	YWV2CA0386A4	Hold Plate for Spring Plate
M8	YWV4JA0478A4	Spring Coil
M9	YWV2SA2640A3	Front Mounting Angle
M10	YWV2TB0333A3	Mounting Bracket
M11	YWV1KA0128A4	Washer
M12	YWV5EA1337A2	Upper Cover
M13	YWV2HA1168A3	Shield Mounting Angle
M14	YWV6EA0196A3	Lid
M15	YWV5KA1357A3	Shieled Case
M17	YWV2KA0874A2	Bottom Cover
M19	YWV5BA0121A3	Rear Escutcheon
M20	YWV2SA2641A3	Mounting Angle
M21	YWV5WA1579A4	Rear Panel
M22	YWSR6W1	Cord Clamp
M30	YWV5WA1584A4	Front Side Panel
M33	YWV7SA1906A4	Label
M35	YWV7MA0412A4	Fuse Change Label
M36 <!>	YWV7QA3194A4	Main Label for WV-CP210/B
	YWV7QA3195A4	Main Label for WV-CP210/G
	YWV7QA3196A4	Main Label for WV-CP210/A
M40	YWV2NA0084A4	Spacer
M41	YWV2PA0615A4	Insulator

REF.NO.	PART NO.	DESCRIPTION
ALC BOARD		
PCB2 (RTL)	YWVKYCP21P5A	Printed Circuit Board Assy
L8	ELJFC8R2MF	Coil 8.2 µH
L9	ELJFCR68MF	Coil 0.68 µH
L11,12	ELJFC8R2MF	Coil 8.2 µH
CN1	AXN420330P	30-pin Connector
CN2	YFD4151N200	ALC 4-pin Connector
CN3	YW525881890	18-pin Connector
REAR SUB BOARD		
PCB3 (RTL)	YWVKBCP21P4A	Printed Circuit Board Assy
CN1	YW525882090	20-pin Connector
REAR BOARD		
PCB4 (RTL)	YWVKCCP21P4A	Printed Circuit Board Assy
IC1	YWM5237ML	IC
Q1	2SB710-QRS	Transistor
D1	LN28RPPN	LED
R1	ERJ3GEYJ751	Carbon 750 ohms 1/16W
R2-6	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R7	ERJ14YJ750	Carbon 75 ohms 1/4W
R8	YF2116222GT	Carbon 2.2K ohms 1/10W
R9	ERJ3GEYJ221	Carbon 220 ohms 1/16W
R10	**ERJ3RHD113S**	**Carbon 11K ohms 1/10W**
R11	**ERJ3RHD431S**	**Carbon 430 ohms 1/10W**
R12	**ERJ3RHD432S**	**Carbon 4.3K ohms 1/10W**
VR1,2	YWST4B203	Variable Resistor 20K ohms
C1	YW5F104Z2VB	Ceramic 0.1 µF
C2	ECEV0JV101	Electrolytic 100 µF 6.3V
C3	ECEV0JV220	Electrolytic 22 µF 6.3V
C6	**ECEV1HV010SR**	**Electrolytic 1 µF 50V**
SW1	YWKSD05S	Slide Switch
CN1	YW533910690	6-pin Connector
M18	YWLH53	LED Spacer

POWER BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB5 (RTL)	YWVKYCP21E3A	Printed Circuit Board Assy	
IC1	YWFA5304S	IC	
IC2	YWTA764315	IC	
Q1	2SK154801M	FET	
Q4	2SC2412-QRS	Transistor	
D1 <!>	S1VB60	Diode	
D2	YWDAN217	Diode	
D3	YWSC2012	Diode	
D4	YWDTZS.1	Diode	
D5,6	YWPC111LY	Diode	
D7	YWSC80206L	Diode	
VS1	ERZC07DK471U	ZNR	
R1	ERJ14YJ114	Carbon	110Kohms 1/4W
R2	YF2116220JT	Carbon	22ohms 1/10W
R3	YF2116184JT	Carbon	180Kohms 1/10W
R4	YF2116220JT	Carbon	22ohms 1/10W
R5	ERJ6GEYJ153	Carbon	15Kohms 1/10W
R6	YW2116242JT	Carbon	2.4Kohms 1/10W
R7	ERJ6GEYJ221	Carbon	220ohms 1/10W
R8	**ERJ14YJ2R7**	**Carbon**	**2.7 ohms 1/4W**
R9,10	ERJ14YJ913	Carbon	91Kohms
R11	YF2116822JT	Carbon	8.2Kohms 1/10W
R12	ERJ6GEYJ470	Carbon	47ohms 1/10W
R13	ERJ6GEYJ102	Carbon	1Kohms 1/10W
R14	**YWR1220Q390D**	**Metal**	**39 ohms**
R15	YWR1220P622D	Metal	6.2K ohms
R16	YF2116681JT	Carbon	680ohms 1/10W
R17	YWR1220P622D	Metal	6.2K ohms
R18	ERJ6GEYJ103	Carbon	10Kohms 1/10W
R19	ERJ6GEYJ512	Carbon	5.1Kohms 1/10W
R20	YF2116124GT	Carbon	120Kohms 1/10W
R21,22	ERJ14YJ114	Carbon	110Kohms 1/4W
R23	ERJ6GEYJ363	Carbon	36Kohms 1/10W
R30	ERJ6GEY0R00	Carbon	0ohms 1/10W
R31,32	ERJ8GC50R00	Carbon	0ohms 1/10W
C1 <!>	ECQU2A333MV	Plastic	0.033 µF
C2-4 <!>	ECKDR5222ME	Ceramic	2200 pF
C5	RJ3400V100M	Electrolytic	10 µF
C6	ECA1VFQ270	Electrolytic	27 µF
C7	YW400105FZ	Ceramic	1 µF
C8	YF400681CHJT	Ceramic	680 µF 50V
C9	YF400104FZT	Ceramic	0.1 µF
C10	ECEA1HGE3R3	Electrolytic	3.3 µF 50V
C11	YF400103XKT	Ceramic	0.01 µF
C12	YF400822XKT	Ceramic	8200 pF
C13	YF400103XKT	Ceramic	0.01 µF
C14,15	ECA1CFQ271	Electrolytic	270 µF 16V
C16	ECA1AFQ181	Electrolytic	180 µF 10V
C17	YF400104FZT	Ceramic	0.1 µF
C18,19	ECKDR5332ME	Ceramic	3300 pF

REF.NO.	PART NO.	DESCRIPTION	
C20	ECQU2A563MT	Plastic	0.056 µF
L1	ELF23F21ˆA	Coil	
L2	YWPC7330K	Coil	33 µH
T1 <!>	YWPC19HWA5	Power Transformer	
CN1	YWB2P3VH	2-pin Connector	
CN2	YW526630610	6-pin Connector	
E1,2	S-N5057	Fuse Holder	
E3,4	YW851040	Insulator	
M25	YWV1KA0181A4	Washer	
M26	YWV2HA1169A4	Shield Parts	
M27	YWV2PA0612A4	Insulator	
M28	YWV2PA0613A4	Insulator	
M29	YWV7DA0374B4	Heat Sink	

MAIN BOARD

PCB6 (RTL)	YWVKYCP21E2A	Printed Circuit Board Assy	
IC2	AN2018S	IC	
IC3	**YWTC74VC04FS**	**IC**	
IC5	MN38605A	IC	
IC6	YWCXD2404R	IC	
IC8	AN2145NFHP	IC	
IC9	MN3111H	IC	
IC10	YWLM324D8EL	IC	
IC11	YWNJM3416	IC	
IC16	MN13821R	IC	
IC18	YWPD75064501	IC	
IC20	YWMB88346BEF	IC	
IC21	YWBR93LC46	IC	
IC22	YWMB88346BEF	IC	
IC23	**MN73093LBX**	**IC**	
IC25	YWTC7S04F	IC	
IC26	YWSC14S69F	IC	
IC27	AN2458SH	IC	
IC28	**YWCS020074E1**	**IC**	
IC29	YWSC14S66F	IC	
Q1	2SK853	Transistor	
Q2,3	2SK662-PQR	FET	
Q4	2SK853	Transistor	
Q11	2SC4619	Transistor	
Q12	**2SC4619**	**Transistor**	
Q13,15	2SC4617	Transistor	
Q16,17	2SC4617	Transistor	
Q19,20	2SC4617	Transistor	
Q23	XN4501	Transistor	
Q26,29	2SA1774	Transistor	
Q30,31	2SA1774	Transistor	
Q32,33	2SC4617	Transistor	
D2	MA132K	Diode	
D7	YWDA121	Diode	
D8-11	MA726	Diode	

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
D12	MA8100	Diode		R126	YF2116106JT	Carbon	10M ohms 1/10W
D13	MA8150	Diode		R128	ERJ3GEYJ153	Carbon	15K ohms 1/16W
D14-21	MA372	Diode		R129	ERJ3GEYJ224	Carbon	220K ohms 1/16W
D22-27	YWDA221	Diode		R132	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
D28	YWDA121	Diode		R133	ERJ3GEYJ153	Carbon	15K ohms 1/16W
D29	MA726	Diode		R138	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R3	**ERJ6GEY0R00**	**Carbon**	**0 ohms 1/10W**	R141	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R19,21	ERJ3GEYJ270	Carbon	27 ohms 1/16W	R142	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R24	ERJ3GEYJ270	Carbon	27 ohms 1/16W	R143	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R32	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R145	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R37	ERJ3GEYJ621	Carbon	620 ohms 1/16W	R146	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R38	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R147	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R39	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R148	ERJ3GEYJ391	Carbon	390 ohms 1/16W
R43	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R150	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R44	ERJ3GEYJ202	Carbon	2K ohms 1/16W	R151	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R45	ERJ3GEYJ621	Carbon	620 ohms 1/16W	R153	ERJ3GEYJ821	Carbon	820 ohms 1/16W
R46	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R157-159	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R47	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W	R160	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R56	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R161	ERJ3GEYJ393	Carbon	39K ohms 1/16W
R57,58	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R162	ERJ3GEYJ180	Carbon	18 ohms
R59	ERJ3GEYJ103	Carbon	10K ohms 1/16W	**R163**	**ERJ3GEYG303**	**Carbon**	**30K ohms 1/16W**
R60	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R164	ERJ3GEYJ154	Carbon	150K ohms 1/16W
R61	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R165	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R62,65	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R166	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R66	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R167,168	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R67	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R170	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R68	ERJ3GEYJ102	Carbon	1K ohms 1/16W	**R171**	**ERJ3GEYG563**	**Carbon**	**56K ohms 1/16W**
R70	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R172	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R72	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R173	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R73	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W	R174	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R74	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R175	ERJ3GEYJ393	Carbon	39K ohms 1/16W
R75	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R179	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W
R76	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R182	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R77	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W	R183	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R81	**ERJ3GEYJ333**	**Carbon**	**33K ohms 1/16W**	R185	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R84	ERJ3GEYJ821	Carbon	820 ohms 1/16W	R186,187	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R87	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R188	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R88,89	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R189	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R92	ERJ3GEYJ154	Carbon	150K ohms 1/16W	R190	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R93	ERJ3GEYJ514	Carbon	510K ohms 1/16W	R191	ERJ3GEYJ684	Carbon	680K ohms 1/16W
R94	ERJ3GEYJ121	Carbon	120 ohms 1/16W	R193	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R95	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R194	ERJ3GEYJ433	Carbon	43K ohms 1/16W
R97	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R196,198	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R103	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R200	ERJ3GEYJ203	Carbon	20K ohms 1/16W
R108	ERJ3GEYJ432	Carbon	4.3K ohms 1/16W	R201	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R110-112	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R202	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R113	ERJ3GEYJ623	Carbon	62K ohms 1/16W	R203	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R114,116	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R205	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R117	**ERJ3GEYJ334**	**Carbon**	**330K ohms 1/16W**	R207	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W
R118	ERJ3GEYJ302	Carbon	3K ohms 1/16W	R209	ERJ3GEYJ203	Carbon	20K ohms 1/16W
R120	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R213	ERJ3GEYJ393	Carbon	39K ohms 1/16W
R121	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W	R214	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R123	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R217	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R124	ERJ3GEYJ180	Carbon	18 ohms 1/16W	R218	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R125	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R219	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
R220	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R304	ERJ3GEYJ561	Carbon	560 ohms 1/16W
R221	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R306	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R222	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R307	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R223	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R308	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R224	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R309	ERJ3GEYJ474	Carbon	470K ohms 1/16W
R225,226	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R310	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R227	**ERJ3GEYJ431**	**Carbon**	**430 ohms 1/16W**	R311	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R228	ERJ3GEYJ331	Carbon	330 ohms 1/16W	R313	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R230	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R314	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R231	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R317	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R232	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R318	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R233	ERJ3GEYJ821	Carbon	820 ohms 1/16W	R319	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R235	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R320	ERJ3GEYJ823	Carbon	82K ohms 1/16W
R236,237	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R321	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R239	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R322	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R240	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R323	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R245	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R324	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R246	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R325	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R247	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R326-328	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R248	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R329	ERJ3GEYJ821	Carbon	820 ohms 1/16W
R249	ERJ3GEYJ105	Carbon	1M ohms 1/16W	R330	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R250	ERJ3GEYJ271	Carbon	270 ohms 1/16W	**R336**	**Deleted**		
R251	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R337	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R252	ERJ3GEYJ103	Carbon	10K ohms 1/16W	**R338**	**Deleted**		
R253	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R339	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R255	ERJ3GEYJ105	Carbon	1M ohms 1/16W	R500	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R256	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R501	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R257	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R502	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R259	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R505	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R260	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R507	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R263	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R508	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R264	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R509	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R265	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R513	ERJ3GEYJ751	Carbon	750 ohms 1/16W
R267,268	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R515	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R269	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R516	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R270	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R517	ERJ3GEYJ823	Carbon	82K ohms 1/16W
R271	ERJ3GEYJ184	Carbon	180K ohms 1/16W	R518,519	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R275	ERJ3GEYJ103	Carbon	10K ohms 1/16W	**R520**	**ERJ3GEYG104**	**Carbon**	**100K ohms 1/16W**
R276	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R521,522	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W
R278	ERJ3GEYJ104	Carbon	100K ohms 1/16W	R528	YF2116185JT	Carbon	1.8M ohms 1/10W
R279,280	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R529	ERJ3GEYJ331	Carbon	330 ohms 1/16W
R282	ERJ3GEYJ473	Carbon	47K ohms 1/16W	R531	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R283	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R533	ERJ3GEYJ683	Carbon	68K ohms 1/16W
R285	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R534,535	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R287,288	ERJ3GEYJ122	Carbon	1.2K ohms 1/16W	R536	ERJ3GEYJ683	Carbon	68K ohms 1/16W
R289	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R537,538	ERJ3GEYJ224	Carbon	220K ohms 1/16W
R290,291	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R541	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R292	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R542	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R294	ERJ3GEYJ511	Carbon	510 ohms 1/16W	R543	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R295	ERJ3GEYJ183	Carbon	18K ohms 1/16W	R544	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R297	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R545	ERJ3GEYJ911	Carbon	910 ohms 1/16W
R298	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R546	ERJ3GEYJ202	Carbon	2K ohms 1/16W
R299,300	ERJ3GEYJ102	Carbon	1K ohms 1/16W	**R547**	**ERJ3GEY0R00**	**Carbon**	**0 ohms 1/16W**
R301	ERJ3GEYJ333	Carbon	33K ohms 1/16W	**R548**	**ERJ3GEYJ823**	**Carbon**	**82K ohms 1/16W**
R302	ERJ3GEYJ221	Carbon	220 ohms 1/16W	C11	YW5CH151J5VB	Ceramic	150 pF

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
C13	YW5CH560J5VB	Ceramic	56 pF	C114	YW5X103K2VB	Ceramic	0.01 µF
C14	YW5CH151J5VB	Ceramic	150 pF	C115	YW400393XKT	Ceramic	0.039 µF
C18	YW5CH270J5VB	Ceramic	27 pF	C118,119	YF400104FZT	Ceramic	0.1 µF
C19	YW5CH330J5VB	Ceramic	33 pF	C123	ECEV1CV100	Electrolytic	10 µF16V
C21	YW5X103K2VB	Ceramic	0.01 µF	C124	YWE212F105ZT	Ceramic	1 µF
C25	YW5CH101J5VB	Ceramic	100 pF	C125	ECEV0JV220	Electrolytic	22 µF 6.3V
C26	YW5F104Z2VB	Ceramic	0.1 µF	C126	YWE212F105ZT	Ceramic	1 µF
C28,29	YW5X103K2VB	Ceramic	0.01 µF	C127	ECST1AY225ZR	Electrolytic	2.2 µF 10V
C30	YF400104FZT	Ceramic	0.1 µF	C128	YF400104FZT	Ceramic	0.1 µF
C31	YW5X102K5VB	Ceramic	1000 pF	C129	ECEV1EV220	Electrolytic	22 µF 25V
C35	YW5CH331J5VB	Ceramic	330 pF	C130	YW5X222K5VB	Ceramic	2200 pF
C36	YW5F104Z2VB	Ceramic	0.1 µF	C131	ECEV1CV220	Electrolytic	22 µF 16V
C37	YW5X102K5VB	Ceramic	1000 pF	C132	ECEV1EV220	Electrolytic	22 µF 25V
C38	YW5CH331J5VB	Ceramic	330 pF	C133	ECEV1CV220	Electrolytic	22 µF 16V
C40	YW5F473Z2VB	Ceramic	0.047 µF	**C134**	**ECEV1HV010SR**	**Electrolytic**	**1 µF 50V**
C43	YW5X103K2VB	Ceramic	0.01 µF	C135	ECEV1EV220	Electrolytic	22 µF 25V
C44,45	YF400104FZT	Ceramic	0.1 µF	C136	ECEV1CV100	Electrolytic	10 µF 16V
C46	YW5X103K2VB	Ceramic	0.01 µF	C137	ECEV1EV6R8	Electrolytic	6.8 µF 25V
C47	YF400104FZT	Ceramic	0.1 µF	C139	ECEV0JV220	Electrolytic	22 µF 6.3V
C48	YW5F104Z2VB	Ceramic	0.1 µF	C140	ECEV1EV220	Electrolytic	22 µF 25V
C50	YW400473XK	Ceramic	0.047 µF	C141	YF400104FZT	Ceramic	0.1 µF
C52	TAJA105M016	Electrolytic	1 µF 16V	**C142**	**ECEV1HV0105R**	**Electrolytic**	**1 µF 50V**
C53,55	YW400473XK	Ceramic	0.047 µF	**C143**	**ECEV0JV470SP**	**Electrolytic**	**47 µF 6.3V**
C56,57	YW5F104Z2VB	Ceramic	0.1 µF	C145	ECEV1EV220	Electrolytic	22 µF 25V
C58	YW5X103K2VB	Ceramic	0.01 µF	C146	YWE212F105ZT	Ceramic	1 µF
C59	YW5F104Z2VB	Ceramic	0.1 µF	**C148**	**ECEV1EV4R7SR**	**Electrolytic**	**4.7 µF 25V**
C61,63	YF400104FZT	Ceramic	0.1 F	C149	ECEV1EV220	Electrolytic	22 µF 25V
C64,65	YW5X103K2VB	Ceramic	0.01 µF	C150,151	ECEV1EV4R7SR	Electrolytic	4.7 µF 25V
C66	YW5F104Z2VB	Ceramic	0.1 µF	C152	ECEV0JV101	Electrolytic	100 µF 6.3V
C67	YF400104FZT	Ceramic	0.1 µF	C154	ECEV1HV2R2SR	Electrolytic	2.2 µF 50V
C69	YW5X103K2VB	Ceramic	0.01 µF	C155	ECEV1HV3R3SR	Electrolytic	3.3 µF 50V
C71	YF400104FZT	Ceramic	0.1 µF	C156	ECEV1CV100	Electrolytic	10 µF 16V
C72	YW5X103K2VB	Ceramic	0.01 µF	C160	ECEV0JV470S	Electrolytic	47 µF 6.3V
C74	YW5X102K5VB	Ceramic	1000 pF	C170	YWE212F105ZT	Ceramic	1 µF
C75,78	YF400224FZT	Ceramic	0.22 µF	**C171**	**ECEV1HN2R2SR**	**Electrolytic**	**2.2 µF 50V**
C80	YF400104FZT	Ceramic	0.1 µF	C172	YWE212F105ZT	Ceramic	1 µF
C81	YW400473XK	Ceramic	0.047 µF	C175,176	YWE212F105ZT	Ceramic	1 µF
C82	YF400104FZT	Ceramic	0.1 µF	C177	ECST1AC336ZR	Tantalum	33 µF 10V
C83	YW5X102K5VB	Ceramic	1000 pF	C178	YF400223XKT	Ceramic	0.022 µF
C84	YW5F104Z2VB	Ceramic	0.1 µF	C181,183	YWE212F105ZT	Ceramic	1 µF
C86	YW5X103K2VB	Ceramic	0.01 µF	C184	TAJA105M016	Tantalum	1 µF 16V
C87	YW5X102K5VB	Ceramic	1000 pF	C185	ECST1AB106	Tantalum	10 µF 10V
C88	YW5CH100J5VB	Ceramic	10 pF	C186	ECST0JY106ZR	Tantalum	10 µF 6.3V
C89	YW5CH470J5VB	Ceramic	47 pF	C187	ECST1AB106	Tantalum	10 µF 10V
C92	YF400104FZT	Ceramic	0.1 µF	C189,190	YWE212F105ZT	Ceramic	1 µF
C94,96	**YW5CH331J5VB**	**Ceramic**	**330 pF**	C196,197	YWE212F105ZT	Ceramic	1 µF
C99	YW5F104Z2VB	Ceramic	0.1 µF	C198	ECST1AB106	Tantalum	10 µF 10V
C100	YW5X103K2VB	Ceramic	0.01 µF	C199	ECST0JX106	Tantalum	10 µF 6.3V
C101	YW5CH360J5VB	Ceramic	36 pF	C200	ECST1AB106	Tantalum	10 µF 10V
C102	YW5CH270J5VB	Ceramic	27 pF	C202	TAJA105M016	Tantalum	1 µF 16V
C105	YW5CH101J5VB	Ceramic	100 pF	C203	ECST1AY225ZR	Tantalum	2.2 µF 10V
C106	YW5F104Z2VB	Ceramic	0.1 F	C204	YW5CH101J5VB	Ceramic	100 pF
C107,108	YW5CH331J5VB	Ceramic	330 pF	C205	YW5F104Z2VB	Ceramic	0.1 µF
C109,110	YW5CH271J5VB	Ceramic	270 pF	C206	YW5X103K2VB	Ceramic	0.01 µF
C111,113	YF400104FZT	Ceramic	0.1 µF	C208-210	YW5CH050D5VB	Ceramic	5 pF

REF.NO.	PART NO.	DESCRIPTION	
C211	YF400104FZT	Ceramic	0.1 µF
C212,213	YW5F10422VB	Ceramic	0.1 µF
C214	ECST1AY225ZR	Tantalum	2.2 µF 10V
C215	YW5X103K2VB	Ceramic	0.01 µF
C219	ECST1VD106	Tantalum	10 µF 35V
C220	YWE212F105ZT	Ceramic	1 µF
C221	**Deleted**		
C222	YW5CH330J5VB	Ceramic	33 pF
L7	ELJFC150KB	Coil	15 µH
L10	ELJFC150KB	Coil	15 µH
L13	ELJFC8R2MF	Coil	8.2 µH
L14	EIC4EN006E	Coil	
L15	ELJFC8R2MF	Coil	8.2 µH
L19	ELJFB101KB	Coil	100 µH
L21	ELJFC8R2MF	Coil	8.2 µH
L24	ELJSC330KB	Coil	
L30,31	ELJFC8R2MF	Coil	8.2 µH
L33	EIC4EJ003E	Coil	
L35	ELJFC8R2MF	Coil	8.2 µH
X1	YWCSTCS419MG	Crystal Oscillator	
X2	YWDX17R734	Crystal Oscillator	
X3	YWDX14R187	Crystal Oscillator	
CF5	ELB48532	Filter	
CF6	YW4FW7250	Filter	
CF7	YW4FW7249	Filter	
CN1,3	YW31756316	6-pin Connector	
CN4	YWS33072091	20-pin Connector	
CN6	YWS33071891	18-pin Connector	

ACCESSORY PARTS/PACKAGING PARTS

M51	YWV8QA3217AN	Operating Instructions
M53	YWT20X35C03	Polyethylene Bag
M55	YWV9CA2185AN	Packaging Assy for WV-CP210/B
	YWV9CA2186AN	Packaging Assy for WV-CP210/G
	YWV9CA2190AN	Packaging Assy for WV-CP210/A
M56	YWV7FA0201A4	Packaging Label for WV-CP210/B
M57	YWV7SA1450A4	Caution Label for WV-CP210/B,G

REF.NO.	PART NO.	DESCRIPTION

1/3"COLOUR CCD CAMERA WV-CP212

MISCELLANEOUS

FB1	**YWCP210J1A**	**Flexible Board**
CN101	YWP2270	BNC Connector
M1	YWBC-28	Body Cap
M2	YWV1EB0127A4	Special Screw for FB Lock
M3	YWV3FA0175A3	FB Control Ring
M4	YWV5BA0120A2	Front Escutcheon
M5	YWVAKA1192AN	Optical Head Assy
M6	YWV4JA0479A4	Spring Plate
M7	YWV2CA0386A4	Hold Plate for Spring Plate
M8	YWV4JA0478A4	Spring Coil
M9	YWV2SA2640A3	Front Mounting Angle
M10	YWV2TB0333A3	Mounting Bracket
M11	YWV1KA0128A4	Washer
M12	YWV5EA1337A2	Upper Cover
M13	YWV2HA1168A3	Shield Parts
M17	YWV2KA0874A2	Bottom Cover
M19	YWV5BA0121A3	Rear Escutcheon
M20	YWV2SA2642A3	Rear Mounting Angle
M21	YWV5WA1607A4	Rear Panel
M25	YWV1KA0181A4	Washer
M27	YWV2NA0462A4	Spacer Board
M33	YWV7SA1954A4	Label
M36 <1>	YWV7QA3254A4	Main Label
M38	YWV5GA0158A4	Cap for Switch
M39	YWV5GA0156A4	Cap for VR
M40	YFV2NA0084A4	Spacer
M41	YWV2PA0615A4	Insulator

ALC BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB2 (RTL)	YWVKYCP21P5A	Printed Circuit Board Assy
L8	ELJFC8R2MF	Coil 8.2 µH
L9	ELJFCR68MF	Coil 0.68 µH
L11,12	ELJFC8R2MF	Coil 8.2 µH
CN1	AXN420330P	30-pin Connector
CN2	YFD4151N200	ALC 4-pin Connector
CN3	YW525881890	18-pin Connector

REAR SUB BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB3 (RTL)	YWVKBCP22P4A	Printed Circuit Board Assy
CN1	YW525882090	20-pin Connector

REAR BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB4 (RTL)	YWVKCCP22P4A	Printed Circuit Board Assy
IC1	YWMB3775PFV	IC
Q1	2SB766A-QR	Transistor
D1	LN28RPPN	LED
D2	YWSC80206L	Diode
D3	**MA736**	**Diode**
R1	ERJ3GEYJ751	Carbon 750 ohms 1/16W
R2,4	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R5,6	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R7	ERJ14YJ750	Carbon 75 ohms
R8	YF2116222GT	Carbon 2.2K ohms 1/10W
R9	ERJ3GEYG183	Carbon 18K ohms 1/16W
R10	ERJ3GEYJ102	Carbon 1K ohms 1/16W
R11	ERJ3GEYG622	Carbon 6.2K ohms 1/16W
R12	ERJ3GEYJ471	Carbon 470 ohms 1/16W
R13	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R14	ERJ3GEYJ333	Carbon 33K ohms 1/16W
R15	ERJ3GEYJ471	Carbon 470 ohms 1/16W
R16	ERJ3GEYJ333	Carbon 33K ohms 1/16W
R17	**YF21164R7JT**	**Carbon 4.7K ohms 1/16W**
VR1,2	YWST4B203	Variable Resistor 20K ohms
C1	YW5F104Z2VB	Ceramic 0.1 µF
C2	ECEV0JV101	Electrolytic 100 µF 6.3V
C3	ECEV0JV220	Electrolytic 22 µF 6.3V
C4,5	ECEV0JG331	Electrolytic 330 µF 6.3V
C6	YW5CH331J5VB	Ceramic 330 pF
C7	**ECEV1HV0105R**	**Electrolytic 1 µF 50V**
C8	YW5F104Z2VB	Ceramic 0.1 µF
C9	ECST1CY684ZR	Electrolytic 0.68 µF 16V
C10	ECEV1EG101	Electrolytic 100 µF 25V
C11	**ECEV1HV010SR**	**Electrolytic 1 µF 50V**
C12,13	**YF400104FZT**	**Ceramic 0.1 µF**
L1	YWCD75560KC	Coil 56 µH
L2	YWCD75101KC	Coil 100 µH

REF.NO.	PART NO.	DESCRIPTION
L3	**YWCDR74101MC**	**Coil 100 µH**
L4	**Deleted**	
SW1	YWKSD04S	Slide Switch
F1	YW5SFC0R8	Current Fuse 0.8 A
E2	YWT6746	2-pin Terminal
M18	YWLH53	LED Spacer

MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB6 (RTL)	YWVKYCP22E2A	Printed Circuit Board Assy
IC2	AN2018S	IC
IC3	**YWTC74VC04FS**	**IC**
IC5	MN3860SA	IC
IC6	YWCXD2404R	IC
IC8	AN2145NFHP	IC
IC9	MN3111H	IC
IC10	YWLM324DBEL	IC
IC11	YWNJM3416	IC
IC16	MN13821R	IC
IC18	YWPD75064501	IC
IC20	YWMB88346BEF	IC
IC21	YWBR93LC46	IC
IC22	YWMB88346BEF	IC
IC23	**MN73093LBX**	**IC**
IC25	YWTC7S04F	IC
IC27	AN2458SH	IC
IC28	YWC5020074E1	IC
IC29	YWSC14566F	IC
Q1	2SK853	Transistor
Q2,3	2SK662-PQR	FET
Q11	2SC4619	Transistor
Q12	**2SC4619**	**Transistor**
Q13,15	2SC4617	Transistor
Q16,17	2SC4617	Transistor
Q19,20	2SC4617	Transistor
Q23	XN4501	Transistor
Q26	2SA1774	Transistor
Q29-31	2SA1774	Transistor
Q32,33	2SC4617	Transistor
D2	MA132K	Diode
D7	YWDA121	Diode
D8-11	MA726	Diode
D12	MA8100	Diode
D13	MA8150	Diode
D14-17	MA372	Diode
D20,21	MA372	Diode
D22-27	YWDA221	Diode
D28	YWDA121	Diode
D29	MA726	Diode

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
R3	ERJ6GEY0R00	Carbon	1 ohms 1/10W	R132	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R19	ERJ3GEYJ270	Carbon	27 ohms 1/16W	R133	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R21	ERJ3GEYJ270	Carbon	27 ohms 1/16W	R138	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R24	ERJ3GEYJ270	Carbon	27 ohms 1/16W	R141	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R32	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R142	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R37	ERJ3GEYJ621	Carbon	620 ohms 1/16W	R143	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R38	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R145	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R39	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R146	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R43	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R147	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R44	ERJ3GEYJ202	Carbon	2K ohms 1/16W	R148	ERJ3GEYJ391	Carbon	390 ohms 1/16W
R45	ERJ3GEYJ621	Carbon	620 ohms 1/16W	R150	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R46	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R151	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R47	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W	R153	ERJ3GEYJ821	Carbon	820 ohms 1/16W
R56	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R157-159	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R57,58	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R160	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R59	**Deleted**			R161	ERJ3GEYJ393	Carbon	39K ohms 1/16W
R60	ERJ3GEYJ751	Carbon	750 ohms 1/16W	R162	ERJ3GEYJ180	Carbon	18 ohms 1/16W
R61	ERJ3GEYJ101	Carbon	100 ohms 1/16W	**R163**	**ERJ3GEYG303**	**Carbon**	**30K ohms 1/16W**
R62,65	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R164	ERJ3GEYJ154	Carbon	150K ohms 1/16W
R66	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R165	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R67	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R166	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R68	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R167,168	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R70	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R170	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R72	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	**R171**	**ERJ3GEYJG63**	**Carbon**	**56K ohms 1/16W**
R73	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W	R172	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R74	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R173	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R75	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R174	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R76	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R175	ERJ3GEYJ393	Carbon	39K ohms 1/16W
R77	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W	R179	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W
R81	**ERJ3GEYJ333**	**Carbon**	**33K ohms 1/16W**	R182	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R84	ERJ3GEYJ821	Carbon	820 ohms 1/16W	R183	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R87	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R185	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R88,89	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R186,187	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R92	ERJ3GEYJ154	Carbon	150K ohms 1/16W	R188	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R93	ERJ3GEYJ514	Carbon	510K ohms 1/16W	R189	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R94	ERJ3GEYJ121	Carbon	120 ohms 1/16W	R190	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R95	ERJ3GEYJ684	Carbon	6.8K ohms 1/16W	R191	ERJ3GEYJ684	Carbon	680K ohms 1/16W
R97	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R193	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R103	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R194	ERJ3GEYJ433	Carbon	43K ohms 1/16W
R105	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R196	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R108	ERJ3GEYJ432	Carbon	4.3K ohms 1/16W	R198	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R110-112	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	**R200**	**ERJ3GEYJ273**	**Carbon**	**27K ohms 1/16W**
R113	ERJ3GEYJ623	Carbon	62K ohms 1/16W	R201	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R114	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R202	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R116	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R203	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R117	**ERJ3GEYJ334**	**Carbon**	**330K ohms 1/16W**	R205	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R118	ERJ3GEYJ302	Carbon	3K ohms 1/16W	R207	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W
R120	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R209	ERJ3GEYJ203	Carbon	20K ohms 1/16W
R121	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W	R213	ERJ3GEYJ393	Carbon	39K ohms 1/16W
R123	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R214	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R124	ERJ3GEYJ180	Carbon	18 ohms 1/16W	R217	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R125	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R218	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R126	YF2116106JT	Carbon	10M ohms 1/10W	R219	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R128	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R220	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R129	ERJ3GEYJ224	Carbon	220K ohms 1/16W	R221	ERJ3GEYJ223	Carbon	22K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
R222	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R310	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R223	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R311	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R224	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R312	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R225,226	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R313	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R227	ERJ3GEYJ431	Carbon	430 ohms 1/16W	R317	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R228	ERJ3GEYJ331	Carbon	330 ohms 1/16W	R318	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R230	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R319	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R231	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R324	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R232	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R328	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R233	**ERJ3GEYJ821**	**Carbon**	**820 ohms 1/16W**	R329	ERJ3GEYJ821	Carbon	820 ohms 1/16W
R235	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R330	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R236,237	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R337	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R239	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R339	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R240	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R500	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R245	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R501	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R246	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R502	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R247	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R505	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R248	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R507	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R249	ERJ3GEYJ105	Carbon	1M ohms 1/16W	R508	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R250	ERJ3GEYJ271	Carbon	270 ohms 1/16W	R509	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R251	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R513	ERJ3GEYJ751	Carbon	750 ohms 1/16W
R252	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R515	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R253	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R516	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R255	ERJ3GEYJ105	Carbon	1M ohms 1/16W	R517	ERJ3GEYJ823	Carbon	82K ohms 1/16W
R256	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R518,519	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R257	ERJ3GEYJ103	Carbon	10K ohms 1/16W	**R520**	**ERJ3GEYG104**	**Carbon**	**100K ohms 1/16W**
R259	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R521,522	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W
R260	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R528	YF2116185JT	Carbon	1.8M ohms 1/10W
R263	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R529	ERJ3GEYJ331	Carbon	330 ohms 1/16W
R264	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R531	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R265	ERJ3GEYJ621	Carbon	620 ohms 1/16W	R533	ERJ3GEYJ683	Carbon	68K ohms 1/16W
R267,268	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R534,535	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R269	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R536	ERJ3GEYJ683	Carbon	68K ohms 1/16W
R270	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R537,538	ERJ3GEYJ224	Carbon	220K ohms 1/16W
R271	ERJ3GEYJ184	Carbon	180K ohms 1/16W	R541-544	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R275	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R545	ERJ3GEYJ911	Carbon	910 ohms 1/16W
R276	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R546	ERJ3GEYJ202	Carbon	2K ohms 1/16W
R278	ERJ3GEYJ104	Carbon	100K ohms 1/16W	**R547**	**ERJ3GEY0R00**	**Carbon**	**0 ohms 1/16W**
R282	ERJ3GEYJ473	Carbon	47K ohms 1/16W	**R548**	**ERJ3GEYJ823**	**Carbon**	**82K ohms 1/16W**
R285	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C11	YW5CH151J5VB	Ceramic	150 pF
R287,288	ERJ3GEYJ122	Carbon	1.2K ohms 1/16W	C13	YW5CH560J5VB	Ceramic	56 pF
R289	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	C14	YW5CH151J5VB	Ceramic	150 pF
R290,291	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	C18	YW5CH270J5VB	Ceramic	27 pF
R292	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C19	YW5CH330J5VB	Ceramic	33 pF
R294	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C21	YW5X103K2VB	Ceramic	0.01 µF
R295	ERJ3GEYJ183	Carbon	18K ohms 1/16W	C25	YW5CH101J5VB	Ceramic	100 pF
R296	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C26	YW5F104Z2VB	Ceramic	0.1 µF
R298	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	C28,29	YW5X103K2VB	Ceramic	0.01 µF
R299,300	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C30	YF400104FZT	Ceramic	0.1 µF
R302	ERJ3GEYJ221	Carbon	220 ohms 1/16W	C31	YW5X102K5VB	Ceramic	1000 pF
R304	ERJ3GEYJ561	Carbon	560 ohms 1/16W	C35	YW5CH331J5VB	Ceramic	330 pF
R306	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C36	YW5F104Z2VB	Ceramic	0.1 µF
R307	ERJ3GEYJ101	Carbon	100 ohms 1/16W				
R308	ERJ3GEY0R00	Carbon	0 ohms 1/16W				
R309	ERJ3GEYJ474	Carbon	470K ohms 1/16W				

REF.NO.	PART NO.	DESCRIPTION	
C37	YW5X102K5VB	Ceramic	1000 pF
C38	YW5CH331J5VB	Ceramic	330 pF
C40	YW5F473Z2VB	Ceramic	0.047 µF
C43	YW5X103K2VB	Ceramic	0.01 µF
C44,45	YF400104FZT	Ceramic	0.1 µF
C46	YW5X103K2VB	Ceramic	0.01 µF
C47	YF400104FZT	Ceramic	0.1 µF
C48	YW5F104Z2VB	Ceramic	0.1 µF
C50	YW400473XK	Ceramic	0.047 µF
C52	TAJA105M016	Electrolytic	1 µF 16V
C53,55	YW400473XK	Ceramic	0.047 µF
C56,57	YW5F104Z2VB	Ceramic	0.1 µF
C58	YW5X103K2VB	Ceramic	0.01 µF
C59	YW5F104Z2VB	Ceramic	0.1 µF
C61,63	YF400104FZT	Ceramic	0.1 µF
C64,65	YW5X103K2VB	Ceramic	0.01 µF
C66	YW5F104Z2VB	Ceramic	0.1 µF
C67	YF400104FZT	Ceramic	0.1 µF
C69	YW5X103K2VB	Ceramic	0.01 µF
C71	YF400104FZT	Ceramic	0.1 µF
C72	YW5X103K2VB	Ceramic	0.01 µF
C74	YW5X102K5VB	Ceramic	1000 pF
C75,78	YF400224FZT	Ceramic	0.22 µF
C80	YF400104FZT	Ceramic	0.1 µF
C81	YW400473XK	Ceramic	0.047 µF
C82	YF400104FZT	Ceramic	0.1 µF
C83	YW5X102K5VB	Ceramic	1000 pF
C84	YW5F104Z2VB	Ceramic	0.1 µF
C86	YW5X103K2VB	Ceramic	0.01 µF
C87	YW5X102K5VB	Ceramic	1000 pF
C88	YW5CH100J5VB	Ceramic	10 pF
C89	YW5CH470J5VB	Ceramic	47 pF
C92	YF400104FZT	Ceramic	0.1 µF
C94,96	YW5CH620J5VB	Ceramic	62 pF
C99	YW5F104Z2VB	Ceramic	0.1 µF
C100	YW5X103K2VB	Ceramic	0.01 µF
C101	YW5CH360J5VB	Ceramic	36 pF
C102	YW5CH270J5VB	Ceramic	27 pF
C109,110	YW5CH271J5VB	Ceramic	270 pF
C111	YF400104FZT	Ceramic	0.1 µF
C113	YF400104FZT	Ceramic	0.1 µF
C114	YW5X103K2VB	Ceramic	0.01 µF
C118	YF400104FZT	Ceramic	0.1 µF
C123	ECEV1CV100	Electrolytic	10 µF 16V
C124	YWE212F105ZT	Ceramic	1 µF
C125	ECEV0JV220	Electrolytic	22 µF 6.3V
C126	YWE212F105ZT	Ceramic	1 µF
C127	ECST1AY225ZR	Tantalum	2.2 µF 10V
C128	YF400104FZT	Ceramic	0.1 µF
C129	ECEV1EV220	Electrolytic	22 µF 25V
C130	YW5X222K5VB	Ceramic	2200 pF
C131	ECEV1CV220	Electrolytic	22 µF 16V
C132	ECEV1EV220	Electrolytic	22 µF 25V
C133	ECEV1CV220	Electrolytic	22 µF 16V
C134	**ECEV1HV0105R**	**Electrolytic**	**1 µF 50V**

REF.NO.	PART NO.	DESCRIPTION	
C135	ECEV1EV220	Electrolytic	22 µF 25V
C136	ECEV1CV100	Electrolytic	10 µF 16V
C137	ECEV1EV6R8	Electrolytic	6.8 µF 25V
C139	ECEV0JV220	Electrolytic	22 µF 6.3V
C140	ECEV1EV220	Electrolytic	22 µF 25V
C141	YF400104FZT	Ceramic	0.1 µF
C142	**ECEV1HV0105R**	**Electrolytic**	**1 µF 50V**
C143	ECEV0JV4705P	Electrolytic	47 µF 6.3V
C145	ECEV1EV220	Electrolytic	22 µF 25V
C146	YWE212F105ZT	Ceramic	1 µF
C148	**ECEV1EV4R75R**	**Electrolytic**	**4.7 µF 25V**
C149	ECEV1EV220	Electrolytic	22 µF 25V
C150,151	**ECEV1EV4R75R**	**Electrolytic**	**4.7 µF 25V**
C152	ECEV0JV101	Electrolytic	100 µF 6.3V
C154	**ECEV1HV2R2SR**	**Electrolytic**	**2.2 µF 50V**
C155	ECEV1HV3R3SR	Electrolytic	3.3 µF 50V
C156	ECEV1CV100	Electrolytic	10 µF 16V
C160	**ECEV0JV470SP**	**Electrolytic**	**47 µF 6.3V**
C170	YWE212F105ZT	Ceramic	1 µF
C171	**ECEV1HN2R2SR**	**Electrolytic**	**2.2 µF 50V**
C172	YWE212F105ZT	Ceramic	1 µF
C175	YWE212F105ZT	Ceramic	1 µF
C176	YWE212F105ZT	Ceramic	1 µF
C177	ECST1AC336ZR	Tantalum	33 µF 10V
C178	YF400223XKT	Ceramic	0.022 µF
C181	YWE212F105ZT	Ceramic	1 µF
C183	YWE212F105ZT	Ceramic	1 µF
C184	TAJA105M016	Tantalum	1 µF 16V
C185	ECST1AB106	Tantalum	10 µF 10V
C186	ECST0JY106ZR	Tantalum	10 µF 6.3V
C187	ECST1AB106	Tantalum	10 µF 10V
C189,190	YWE212F105ZT	Ceramic	1 µF
C196,197	YWE212F105ZT	Ceramic	1 µF
C198	ECST1AB106	Tantalum	10 µF 10V
C199	ECST0JX106	Tantalum	10 µF 6.3V
C200	ECST1AB106	Tantalum	10 µF 10V
C202	TAJA105M016	Tantalum	1 µF 16V
C204	YW5CH101J5VB	Ceramic	100 pF
C205	YW5F104Z2VB	Ceramic	0.1 µF
C206	YW5X103K2VB	Ceramic	0.01 µF
C208-210	YW5CH050D5VB	Ceramic	5 pF
C211	YF400104FZT	Ceramic	0.1 µF
C212,213	YW5F104Z2VB	Ceramic	0.1 µF
C214	ECST1AY225ZR	Tantalum	2.2 µF 10V
C215	YW5X103K2VB	Ceramic	0.01 µF
C219	ECST1VD106	Tantalum	10 µF 35V
C220	YWE212F105ZT	Ceramic	1 µF
C222	YW5CH330J5VB	Ceramic	33 pF
L7,10	ELJFC150KB	Coil	15 µH
L13	ELJFC8R2MF	Coil	8.2 µH
L14	EIC4EN006E	Coil	
L15	ELJFC8R2MF	Coil	8.2 µH
L19	ELJFB101KB	Coil	100 µH
L21	ELJFC8R2MF	Coil	8.2 µH

REF.NO.	PART NO.	DESCRIPTION
L24	ELJSC330KB	Coil 33 µH
L30,31	ELJFC8R2MF	Coil 8.2 µH
L35	ELJFC8R2MF	Coil 8.2 µH
X1	YWCSTCS419MG	Crystal Oscillator
X2	YWDX17R734	Crystal Oscillator
X3	YWDX14R187	Crystal Oscillator
CF5	ELB4B532	Filter
CF6	YW4FW7250	Filter
CF7	YW4FW7249	Filter
CN1,3	YW31756316	6-pin Connector
CN4	**YW533072091**	**20-pin Connector**
CN6	**YW533071891**	**18-pin Connector**

ACCESSORY PARTS/PACKAGING PARTS

M51	YWV8QA3217AN	Operating Instructions
M53	YWT20X35C03	Polyethylene Bag
M55	YWV9CA2250AN	Packaging Assy
M57	YWV7SA1450A4	Caution Label

REF.NO.	PART NO.	DESCRIPTION
		1/3"COLOUR CCD CAMERA WV-CP214
		MISCELLANEOUS
FB1	**YWCP210J1A**	**Flexible Board**
F1 <1>	XBA2C20ET0A	Current Fuse 2A 250V
CN101	YWP2270	BNC Connector
E102	YW840522	Insulator Fuse Cover
M1	YWBC-2B	Body Cap
M2	YWV1EB0127A4	Special Screw for FB Lock
M3	YWV3FA0175A3	FB Control Ring
M4	YWV5BA0120A2	Front Escutcheon
M5	YWVAKA1192AN	Optical Head Assy
M6	YWV4JA0479A4	Spring Plate
M7	YWV2CA0386A4	Hold Plate for Spring Plate
M8	YWV4JA0478A4	Spring Coil
M9	YWV2SA2640A3	Front Mounting Angle
M10	YWV2TB0333A3	Mounting Bracket
M11	YWV1KA0128A4	Washer
M12	YWV5EA1337A2	Upper Cover
M13	YWV2HA1168A3	Shield Parts
M17	YWV2KA0874A2	Bottom Cover
M19	YWV5BA0121A3	Rear Escutcheon
M20	YWV2SA2642A3	Rear Mounting Angle
M21	YWV5WA158IA4	Rear Panel
M33	YWV7SA1909A4	Label
M35	YWV7MA0412A4	Fuse Change Label
M36 <2>	YWV7QA3197A4	Main Label
M38	YWV5GA0155A4	Cap for Switch
M39	YWV5GA0156A4	Cap for VR
M40	YFV2NA0084A4	Spacer
M41	YWV2PA0615A4	Insulator

ALC BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB2 (RTL)	YWVKYCP21P5A	Printed Circuit Board Assy
L8	ELJFC8R2MF	Coil 8.2 µH
L9	ELJFCR68MF	Coil 0.68 µH
L11,12	ELJFC8R2MF	Coil 8.2 µH
CN1	AXN420330P	30-pin Connector
CN2	YFD4151N200	ALC 4-pin Connector
CN3	YW525881890	18-pin Connector

REAR SUB BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB3 (RTL)	YWVKBCP24P4A	Printed Circuit Board Assy
CN1	YW525882090	20-pin Connector

REAR BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB4 (RTL)	**YWVKCCP24E4B**	**Printed Circuit Board Assy**	
IC1	YWM5237ML	IC	
Q1	2SB710-QRS	Transistor	
D1	LN28RPPN	LED	
R1	ERJ3GEYJ751	Carbon	750 ohms 1/16W
R2-6	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R7	ERJ14YJ750	Carbon	75 ohms 1/4W
R8	YF2116222GT	Carbon	2.2K ohms 1/10W
R9	ERJ3GEYJ221	Carbon	220 ohms 1/16W
R10	ERJ3GEYG113	Carbon	11K ohms 1/16W
R11	ERJ3GEYG431	Carbon	430 ohms 1/16W
R12	ERJ3GEYG432	Carbon	4.3K ohms 1/16W
R13,14	**ERJ3GEYJ102**	**Carbon**	**1K ohms 1/16W**
R15	**ERJ3GEYJ823**	**Carbon**	**82K ohms 1/16W**
VR1,2	YWST4B203	Variable Resistor	20K ohms
C1	YW5F104Z2VB	Ceramic	0.1 µF
C2	ECEV0JV101	Electrolytic	100 µF 6.3V
C3	ECEV0JV220	Electrolytic	22 µF 6.3V
C4,5	YF400103XKT	Ceramic	0.01 µF
C6	ECEV1HV010SR	Electrolytic	1 µF 50V
C7	**YF400104FZT**	**Ceramic**	**0.1 µF**
C8,9	**YW5X471K5VB**	**Ceramic**	**470 pF**
C10	**YW5F104Z2VB**	**Ceramic**	**0.1 µF**
L1	ELJSC101KB	Coil	100 µH
SW1	YWKSD05S	Slide Switch	
CN1	YW533910890	8-pin Connector	
E2	**YWT6746**	**2-pin Terminal Board**	
M18	YWLH53	LED Spacer	
M24	**Deleted**		

POWER BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB5 (RTL)	YWVKYCP24P3A	Printed Circuit Board Assy	
IC1	YWFA5304S	IC	
IC2	YWTA76431S	IC	
Q1	2SK2182	FET	
Q2,3	YWP52501-1KA	Transistor	
D1 <!>	YWD25BA20	Diode	
D2	YWDAN217	Diode	
D3	YWSC2012	Diode	
D4	YWDTZS.1	Diode	
D7	YWSC80206L	Diode	
VS1	ERZC07DK471U	ZNR	
R1	ERJ14YJ223	Carbon	22K ohms 1/4W
R2	YF2116220JT	Carbon	22 ohms 1/10W
R3	YF2116184JT	Carbon	180K ohms 1/10W
R4	YF2116220JT	Carbon	22 ohms 1/10W
R5	ERJ6GEYJ153	Carbon	15K ohms 1/10W
R6	ERJ6GEYJ202	Carbon	2K ohms 1/10W
R7	ERJ6GEYJ221	Carbon	220 ohms 1/10W
R8	ERJ14YJR51	Carbon	0.5 ohms 1/4W
R9,10	ERJ14YJ112	Carbon	1.1K ohms 1/4W
R11	YF2116152JT	Carbon	1.5K ohms 1/10W
R12	ERJ6GEYJ470	Carbon	47 ohms 1/10W
R13	ERJ6GEYJ102	Carbon	1K ohms 1/10W
R14	**YWR1220Q390D**	**Metal**	**39K ohms**
R15	YWR1220P622D	Metal	6.2K ohms
R16	YF2116681JT	Carbon	680 ohms 1/10W
R17	YWR1220P622D	Metal	6.2K ohms
R18	ERJ6GEYJ103	Carbon	10K ohms 1/10W
R19	YWR1220P221D	Metal	220 ohms
R30	ERJ6GEY0R00	Carbon	1 ohms 1/10W
C1 <!>	**ECQV1H474JZ**	**Plastic**	**0.47 µF**
C2-3 <!>	**ECQB1103KZ**	**Plastic**	**0.01 µF**
C4	**Deleted**		
C5	ECEA1HGE331	Electrolytic	330 µF 50V
C6	ECA1VFQ270	Electrolytic	27 µF 35V
C7	YW400105FZ	Ceramic	1 µF
C8	YF4006B1CHJT	Ceramic	680 µF 50V
C9	YF400104FZT	Ceramic	0.1 µF
C10	ECEA1HGE3R3	Electrolytic	3.3 µF 50V
C11	YF400104FZT	Ceramic	0.1 µF
C12	YF400103XKT	Ceramic	0.01 µF
C13	YW400105FZ	Ceramic	1 µF
C14,15	ECA1CFQ271	Electrolytic	270 µF 16V
C16	ECA1AFQ181	Electrolytic	180 µF 10V
C17	YF400104FZT	Ceramic	0.1 µF
C18	**ECQB1103KZ**	**Plastic**	**0.01 µF**
C20	ECQV1H104JZ	Plastic	0.1 µF 50V (TF)
L1	YWSU10H07040	Coil	
L2	YWPC7330K	Coil	33 µH
T1 <!>	ETS22BC12SAC	Power Transformer	
CN1	YW526630810	8-pin Connector	
E1,2	S-N5057	Fuse Holder	
M25	YWV1KA0181A4	Washer	

MAIN BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB6 (RTL)	**YWVKYCP21E2B**	**Printed Circuit Board Assy**	
IC2	AN2018S	IC	
IC3	**YWTC74VC04FS**	**IC**	
IC5	MN38605A	IC	
IC6	YWCXD2404R	IC	
IC8	AN2145NFHP	IC	
IC9	MN3111H	IC	
IC10	YWLM324DBEL	IC	
IC11	YWNJM3416	IC	
IC16	MN13821R	IC	
IC18	YWPD75064501	IC	
IC20	YWM888346BEF	IC	
IC21	YWBR93LC46	IC	
IC22	YWM888346BEF	IC	
IC23	**MN73093LBX**	**IC**	
IC25	YWTC7S04F	IC	
IC26	YWSC14S69F	IC	
IC27	AN2458SH	IC	
IC28	**YWPC5020074E1**	**IC**	
IC29	YWSC14S66F	IC	
Q1	2SK853	Transistor	
Q2,3	2SK662-PQR	FET	
Q4	2SK853	Transistor	
Q11	2SC4619	Transistor	
Q12	**2SC4619**	**Transistor**	
Q13,15	2SC4617	Transistor	
Q16,17	2SC4617	Transistor	
Q19,20	2SC4617	Transistor	
Q23	XN4501	Transistor	
Q26,29	2SA1774	Transistor	
Q30,31	2SA1774	Transistor	
Q32,33	2SC4617	Transistor	
D2	MA132K	Diode	
D7	YWDA121	Diode	
D8-11	MA726	Diode	
D12	MA8100	Diode	
D13	MA8150	Diode	
D14-21	MA372	Diode	
D22-27	YWDA221	Diode	
D28	YWDA121	Diode	
D29	MA726	Diode	
R3	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R19,21	ERJ3GEYJ270	Carbon	27 ohms 1/16W
R24	ERJ3GEYJ270	Carbon	27 ohms 1/16W
R32	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R37	ERJ3GEYJ621	Carbon	620 ohms 1/16W
R38	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R39	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R43	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R44	ERJ3GEYJ202	Carbon	2K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R45	ERJ3GEYJ621	Carbon	620 ohms 1/16W
R46	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R47	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W
R56	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R57,58	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R59	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R60	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R61	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R62,65	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R66	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R67	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R68	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R70	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R72	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R73	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
R74	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R75	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R76	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W
R77	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
R81	**ERJ3GEYJ333**	**Carbon**	**33K ohms 1/16W**
R84	ERJ3GEYJ821	Carbon	820 ohms 1/16W
R87	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R88,89	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R92	ERJ3GEYJ154	Carbon	150K ohms 1/16W
R93	ERJ3GEYJ514	Carbon	510K ohms 1/16W
R94	ERJ3GEYJ121	Carbon	120 ohms 1/16W
R95	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W
R97	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R103	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R108	ERJ3GEYJ432	Carbon	4.3K ohms 1/16W
R110-112	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R113	ERJ3GEYJ623	Carbon	62K ohms 1/16W
R114,116	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R117	**ERJ3GEYJ334**	**Carbon**	**330K ohms 1/16W**
R118	ERJ3GEYJ302	Carbon	3K ohms 1/16W
R120	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R121	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W
R123	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R124	ERJ3GEYJ180	Carbon	18 ohms 1/16W
R125	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R126	YF2116106JT	Carbon	10M ohms 1/10W
R128	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R129	ERJ3GEYJ224	Carbon	220K ohms 1/16W
R132	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R133	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R138	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R141	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R142	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R143	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R145	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R146	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R147	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R148	ERJ3GEYJ391	Carbon	390 ohms 1/16W
R150	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R151	ERJ3GEYJ273	Carbon	27K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
R153	ERJ3GEYJ821	Carbon	820 ohms 1/16W	R240	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R157-159	ERJ3GEYJ273	Carbon	27K ohms 1/16W	R245	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R160	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R246	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R161	ERJ3GEYJ393	Carbon	39K ohms 1/16W	R247	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R162	ERJ3GEYJ180	Carbon	18 ohms	R248	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R163	**ERJ3GEYG303**	**Carbon**	**30K ohms 1/16W**	R249	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R164	ERJ3GEYJ154	Carbon	150K ohms 1/16W	R250	ERJ3GEYJ271	Carbon	270 ohms 1/16W
R165	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R251	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R166	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R252	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R167,168	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R253	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R170	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R255	ERJ3GEYJ105	Carbon	1M ohms 1/16W
R171	**ERJ3GEYG563**	**Carbon**	**56K ohms 1/16W**	R256	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R172	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R257	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R173	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R259	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R174	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R260	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R175	ERJ3GEYJ393	Carbon	39K ohms 1/16W	R263	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R179	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W	R264	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R182	ERJ3GEY0R00	Carbon	0 ohms 1/16W	R265	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R183	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R267,268	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R185	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R269	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R186,187	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R270	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R188	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R271	ERJ3GEYJ184	Carbon	180K ohms 1/16W
R189	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R275	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R190	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R276	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R191	ERJ3GEYJ684	Carbon	680K ohms 1/16W	R278	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R193	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R279,280	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R194	ERJ3GEYJ433	Carbon	43K ohms 1/16W	R282	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R196,198	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R283	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R200	ERJ3GEYJ203	Carbon	20K ohms 1/16W	R285	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R201	ERJ3GEYJ273	Carbon	27K ohms 1/16W	R287,288	ERJ3GEYJ122	Carbon	1.2K ohms 1/16W
R202	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W	R289	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R203	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R290,291	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W
R205	ERJ3GEYJ273	Carbon	27K ohms 1/16W	R292	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R207	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W	R294	ERJ3GEYJ511	Carbon	510 ohms 1/16W
R209	ERJ3GEYJ203	Carbon	20K ohms 1/16W	R295	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R213	ERJ3GEYJ393	Carbon	39K ohms 1/16W	R297	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R214	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R298	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R217	ERJ3GEYJ473	Carbon	47K ohms 1/16W	R299,300	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R218	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R301	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R219	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R302	ERJ3GEYJ221	Carbon	220 ohms 1/16W
R220	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R304	ERJ3GEYJ561	Carbon	560 ohms 1/16W
R221	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R306	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R222	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R307	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R223	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R308	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R224	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R309	ERJ3GEYJ474	Carbon	470K ohms 1/16W
R225,226	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R310	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R227	**ERJ3GEYJ431**	**Carbon**	**430 ohms 1/16W**	R311	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R228	ERJ3GEYJ331	Carbon	330 ohms 1/16W	R313	ERJ3GEYJ563	Carbon	56K ohms 1/16W
R230	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R314	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R231	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R317	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R232	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R318	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R233	ERJ3GEYJ821	Carbon	820 ohms 1/16W	R319	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R235	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R320	ERJ3GEYJ823	Carbon	82K ohms 1/16W
R236,237	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R321	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R239	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R322	ERJ3GEYJ105	Carbon	1M ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION		REF.NO.	PART NO.	DESCRIPTION	
R323	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	C50	YW400473XK	Ceramic	0.047 µF
R324	ERJ3GEYJ105	Carbon	1M ohms 1/16W	C52	TAJA105M016	Electrolytic	1 µF 16V
R325	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C53,55	YW400473XK	Ceramic	0.047 µF
R326-328	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C56,57	YW5F104Z2VB	Ceramic	0.1 µF
R329	ERJ3GEYJ821	Carbon	820 ohms 1/16W	C58	YW5X103K2VB	Ceramic	0.01 µF
R330	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C59	YW5F104Z2VB	Ceramic	0.1 µF
R336	**Deleted**			C61,63	YF400104FZT	Ceramic	0.1 F
R337	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C64,65	YW5X103K2VB	Ceramic	0.01 µF
R338	**Deleted**			C66	YW5F104Z2VB	Ceramic	0.1 µF
R339	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C67	YF400104FZT	Ceramic	0.1 µF
R500	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C69	YW5X103K2VB	Ceramic	0.01 µF
R501	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C71	YF400104FZT	Ceramic	0.1 µF
R502	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C72	YW5X103K2VB	Ceramic	0.01 µF
R505	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C74	YW5X102K5VB	Ceramic	1000 pF
R507	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C75,78	YF400224FZT	Ceramic	0.22 µF
R508	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C80	YF400104FZT	Ceramic	0.1 µF
R509	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C81	YW400473XK	Ceramic	0.047 µF
R513	ERJ3GEYJ751	Carbon	750 ohms 1/16W	C82	YF400104FZT	Ceramic	0.1 µF
R515	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C83	YW5X102K5VB	Ceramic	1000 pF
R516	ERJ3GEYJ563	Carbon	56K ohms 1/16W	C84	YW5F104Z2VB	Ceramic	0.1 µF
R517	ERJ3GEYJ823	Carbon	82K ohms 1/16W	C86	YW5X103K2VB	Ceramic	0.01 µF
R518,519	ERJ3GEYJ105	Carbon	1M ohms 1/16W	C87	YW5X102K5VB	Ceramic	1000 pF
R520	**ERJ3GEYG104**	**Carbon**	**100K ohms 1/16W**	C88	YW5CH100J5VB	Ceramic	10 pF
R521,522	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W	C89	YW5CH470J5VB	Ceramic	47 pF
R528	YF2116185JT	Carbon	1.8M ohms 1/10W	C92	YF400104FZT	Ceramic	0.1 µF
R529	ERJ3GEYJ331	Carbon	330 ohms 1/16W	**C94,96**	**YW5CH331J5VB**	**Ceramic**	**330 pF**
R531	ERJ3GEYJ105	Carbon	1M ohms 1/16W	C99	YW5F104Z2VB	Ceramic	0.1 µF
R533	ERJ3GEYJ683	Carbon	68K ohms 1/16W	C100	YW5X103K2VB	Ceramic	0.01 µF
R534,535	ERJ3GEYJ273	Carbon	27K ohms 1/16W	C101	YW5CH360J5VB	Ceramic	36 pF
R536	ERJ3GEYJ683	Carbon	68K ohms 1/16W	C102	YW5CH270J5VB	Ceramic	27 pF
R537,538	ERJ3GEYJ224	Carbon	220K ohms 1/16W	C105	YW5CH101J5VB	Ceramic	100 pF
R541-544	ERJ3GEY0R00	Carbon	0 ohms 1/16W	C106	YW5F104Z2VB	Ceramic	0.1 F
R545	ERJ3GEYJ911	Carbon	910 ohms 1/16W	C107,108	YW5CH331J5VB	Ceramic	330 pF
R546	ERJ3GEYJ202	Carbon	2K ohms 1/16W	C109,110	YW5CH271J5VB	Ceramic	270 pF
R547,548	**ERJ3GEY0R00**	**Carbon**	**0 ohms 1/16W**	C111,113	YF400104FZT	Ceramic	0.1 µF
C11	YW5CH151J5VB	Ceramic	150 pF	C114	YW5X103K2VB	Ceramic	0.01 µF
C13	YW5CH560J5VB	Ceramic	56 pF	C115	YW400393XKT	Ceramic	0.039 µF
C14	YW5CH151J5VB	Ceramic	150 pF	C118,119	YF400104FZT	Ceramic	0.1 µF
C18	YW5CH270J5VB	Ceramic	27 pF	C123	ECEV1CV100	Electrolytic	10 µF16V
C19	YW5CH330J5VB	Ceramic	33 pF	C124	YWE212F105ZT	Ceramic	1 µF
C21	YW5X103K2VB	Ceramic	0.01 µF	C125	ECEV0JV220	Electrolytic	22 µF 6.3V
C25	YW5CH101J5VB	Ceramic	100 pF	C126	YWE212F105ZT	Ceramic	1 µF
C26	YW5F104Z2VB	Ceramic	0.1 µF	C127	ECST1AY225ZR	Electrolytic	2.2 µF 10V
C28,29	YW5X103K2VB	Ceramic	0.01 µF	C128	YF400104FZT	Ceramic	0.1 µF
C30	YF400104FZT	Ceramic	0.1 µF	C129	ECEV1EV220	Electrolytic	22 µF 25V
C31	YW5X102K5VB	Ceramic	1000 pF	C130	YW5X222K5VB	Ceramic	2200 pF
C35	YW5CH331J5VB	Ceramic	330 pF	C131	ECEV1CV220	Electrolytic	22 µF 16V
C36	YW5F104Z2VB	Ceramic	0.1 µF	C132	ECEV1EV220	Electrolytic	22 µF 25V
C37	YW5X102K5VB	Ceramic	1000 pF	C133	ECEV1CV220	Electrolytic	22 µF 16V
C38	YW5CH331J5VB	Ceramic	330 pF	**C134**	**ECEV1HV010SR**	**Electrolytic**	**1 µF 50V**
C40	YW5F473Z2VB	Ceramic	0.047 µF	C135	ECEV1EV220	Electrolytic	22 µF 25V
C43	YW5X103K2VB	Ceramic	0.01 µF	C136	ECEV1CV100	Electrolytic	10 µF 16V
C44,45	YF400104FZT	Ceramic	0.1 µF	C137	ECEV1EV6R8	Electrolytic	6.8 µF 25V
C46	YW5X103K2VB	Ceramic	0.01 µF	C139	ECEV0JV220	Electrolytic	22 µF 6.3V
C47	YF400104FZT	Ceramic	0.1 µF	C140	ECEV1EV220	Electrolytic	22 µF 25V
C48	YW5F104Z2VB	Ceramic	0.1 µF				

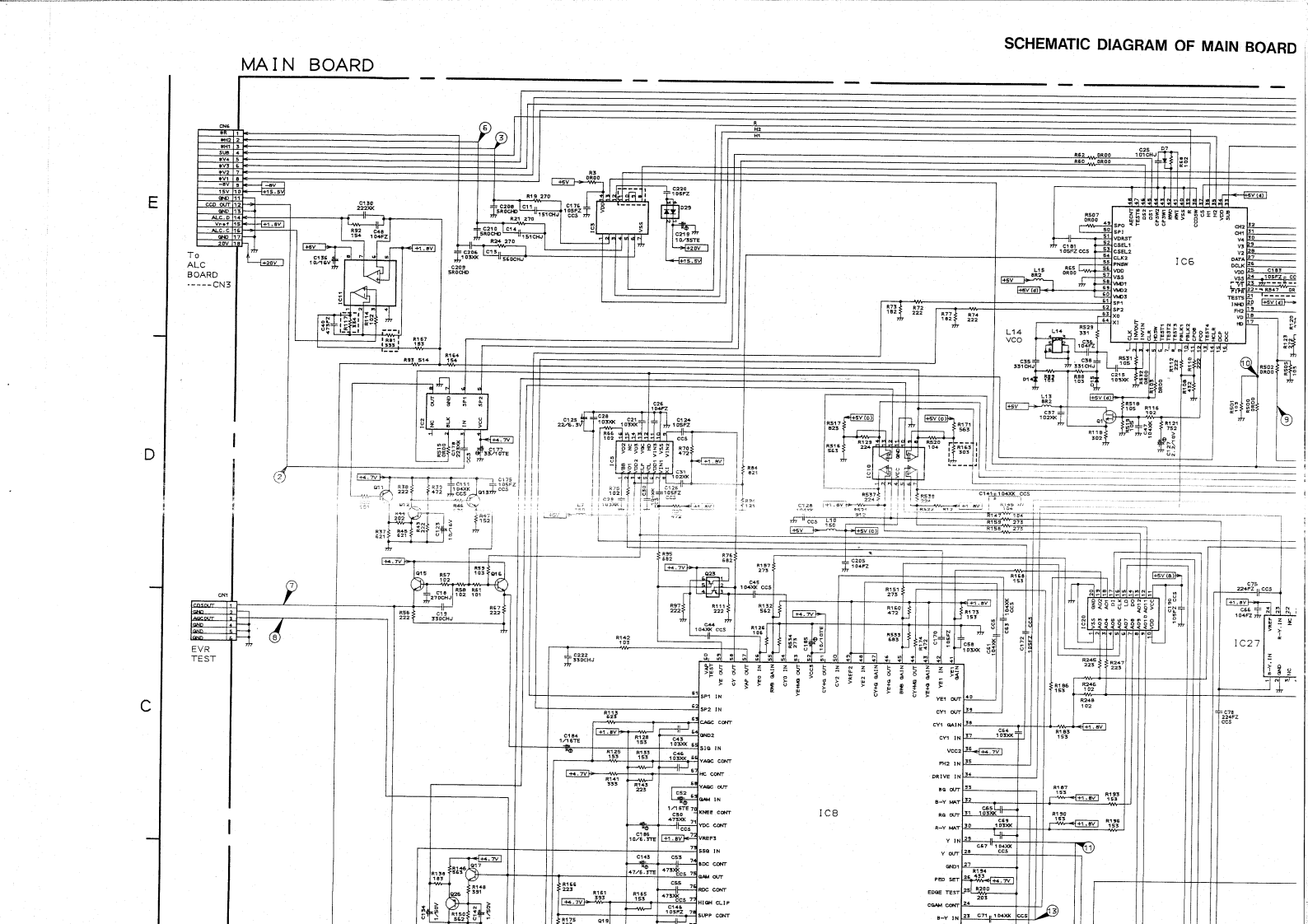
REF.NO.	PART NO.	DESCRIPTION
C141	YF400104FZT	Ceramic 0.1 µF
C142	**ECEV1HV010SR**	**Electrolytic 1 µF 50V**
C143	**ECEV0JV470SP**	**Electrolytic 47 µF 6.3V**
C145	ECEV1EV220	Electrolytic 22 µF 25V
C146	YWE212F105ZT	Ceramic 1 µF
C148	**ECEV1EV4R7SR**	**Electrolytic 4.7 µF 25V**
C149	ECEV1EV220	Electrolytic 22 µF 25V
C150,151	**ECEV1EV4R7SR**	**Electrolytic 4.7 µF 25V**
C152	ECEV0JV101	Electrolytic 100 µF 6.3V
C154	**ECEV1HV2R2SR**	**Electrolytic 2.2 µF 50V**
C155	ECEV1HV3R3SR	Electrolytic 3.3 µF 50V
C156	ECEV1CV100	Electrolytic 10 µF 16V
C160	**ECEV0JV470SP**	**Electrolytic 47 µF 6.3V**
C170	YWE212F105ZT	Ceramic 1 µF
C171	**ECEV1HN2R2SR**	**Electrolytic 2.2 µF 50V**
C172	YWE212F105ZT	Ceramic 1 µF
C175,176	YWE212F105ZT	Ceramic 1 µF
C177	ECST1AC336ZR	Tantalum 33 µF 10V
C178	YF400223XKT	Ceramic 0.022 µF
C181,183	YWE212F105ZT	Ceramic 1 µF
C184	TAJA105M016	Tantalum 1 µF 16V
C185	ECST1AB106	Tantalum 10 µF 10V
C186	ECST0JX106ZR	Tantalum 10 µF 6.3V
C187	ECST1AB106	Tantalum 10 µF 10V
C189,190	YWE212F105ZT	Ceramic 1 µF
C196,197	YWE212F105ZT	Ceramic 1 µF
C198	ECST1AB106	Tantalum 10 µF 10V
C199	ECST0JX106	Tantalum 10 µF 6.3V
C200	ECST1AB106	Tantalum 10 µF 10V
C202	TAJA105M016	Tantalum 1 µF 16V
C203	ECST1AY225ZR	Tantalum 2.2 µF 10V
C204	YW5CH101J5VB	Ceramic 100 pF
C205	YW5F104Z2VB	Ceramic 0.1 µF
C206	YW5X103K2V8	Ceramic 0.01 µF
C208-210	YW5CH050D5VB	Ceramic 5 pF
C211	YF400104FZT	Ceramic 0.1 µF
C212	YW5F104Z2VB	Ceramic 0.1 µF
C213	**Deleted**	
C214	ECST1AY225ZR	Tantalum 2.2 µF 10V
C215	YW5X103K2VB	Ceramic 0.01 µF
C219	ECST1VD106	Tantalum 10 µF 35V
C220	YWE212F105ZT	Ceramic 1 µF
C221	**Deleted**	
C222	YW5CH330J5VB	Ceramic 33 pF
L7,10	ELJFC150KB	Coil 15 µH
L13	ELJFC8R2MF	Coil 8.2 µH
L14	EIC4EN006E	Coil
L15	ELJFC8R2MF	Coil 8.2 µH
L19	ELJFB101KB	Coil 100 µH
L21	ELJFC8R2MF	Coil 8.2 µH
L24	ELJSC330KB	Coil

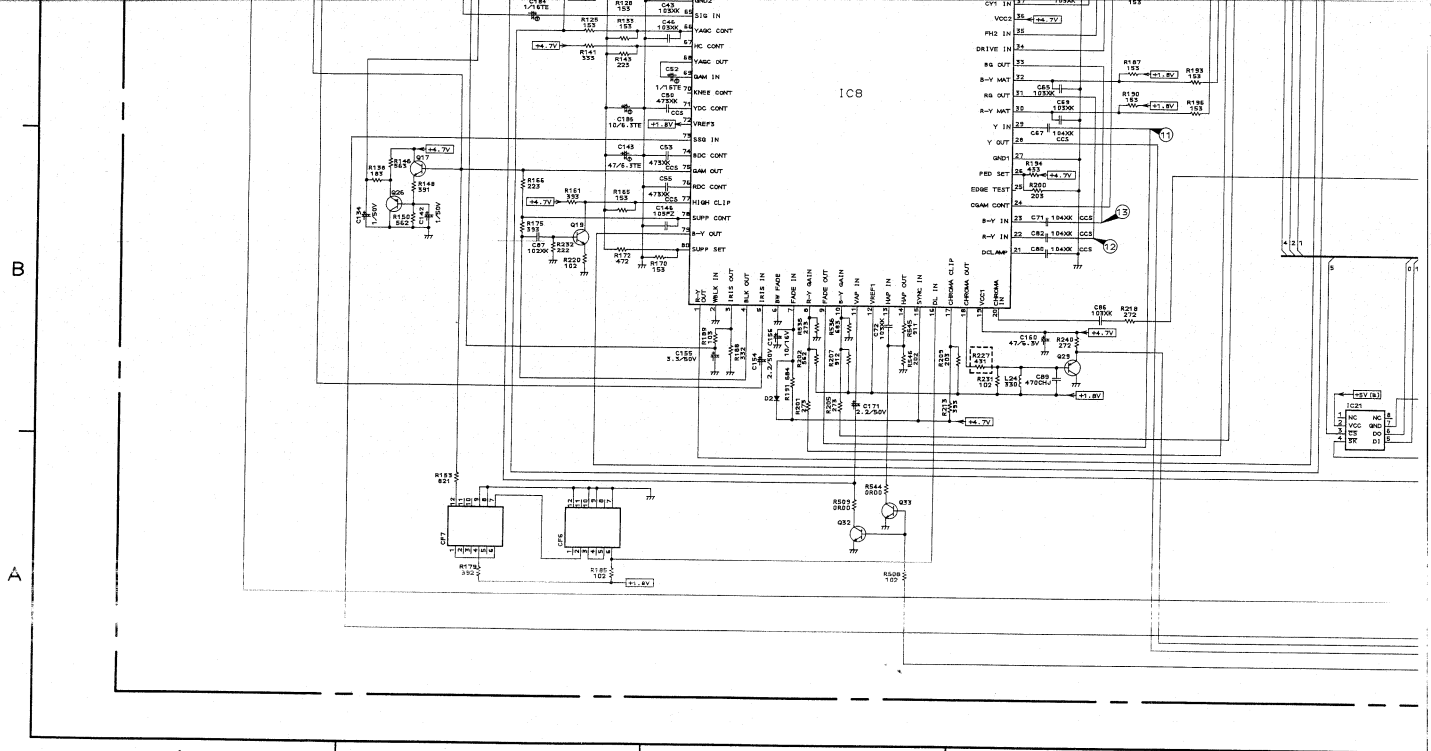
REF.NO.	PART NO.	DESCRIPTION
L30,31	ELJFC8R2MF	Coil 8.2 µH
L33	EIC4EJ003E	Coil
L35	ELJFC8R2MF	Coil 8.2 µH
X1	YWCSTCS419MG	Crystal Oscillator
X2	YWDX17R734	Crystal Oscillator
X3	YWDX14R187	Crystal Oscillator
CF5	ELB48532	Filter
CF6	YW4FW7250	Filter
CF7	YW4FW7249	Filter
CN1,3	YW31756316	6-pin Connector
CN4	YW533072091	20-pin Connector
CN6	YW533071891	18-pin Connector

ACCESSORY PARTS/PACKAGING PARTS

M51	YWVBQA3217AN	Operating Instructions
M53	YWT20X35C03	Polyethylene Bag
M55	YWV9CA2187AN	Packaging Assy
M57	YWV7SA1450A4	Packaging Label

MAIN BOARD



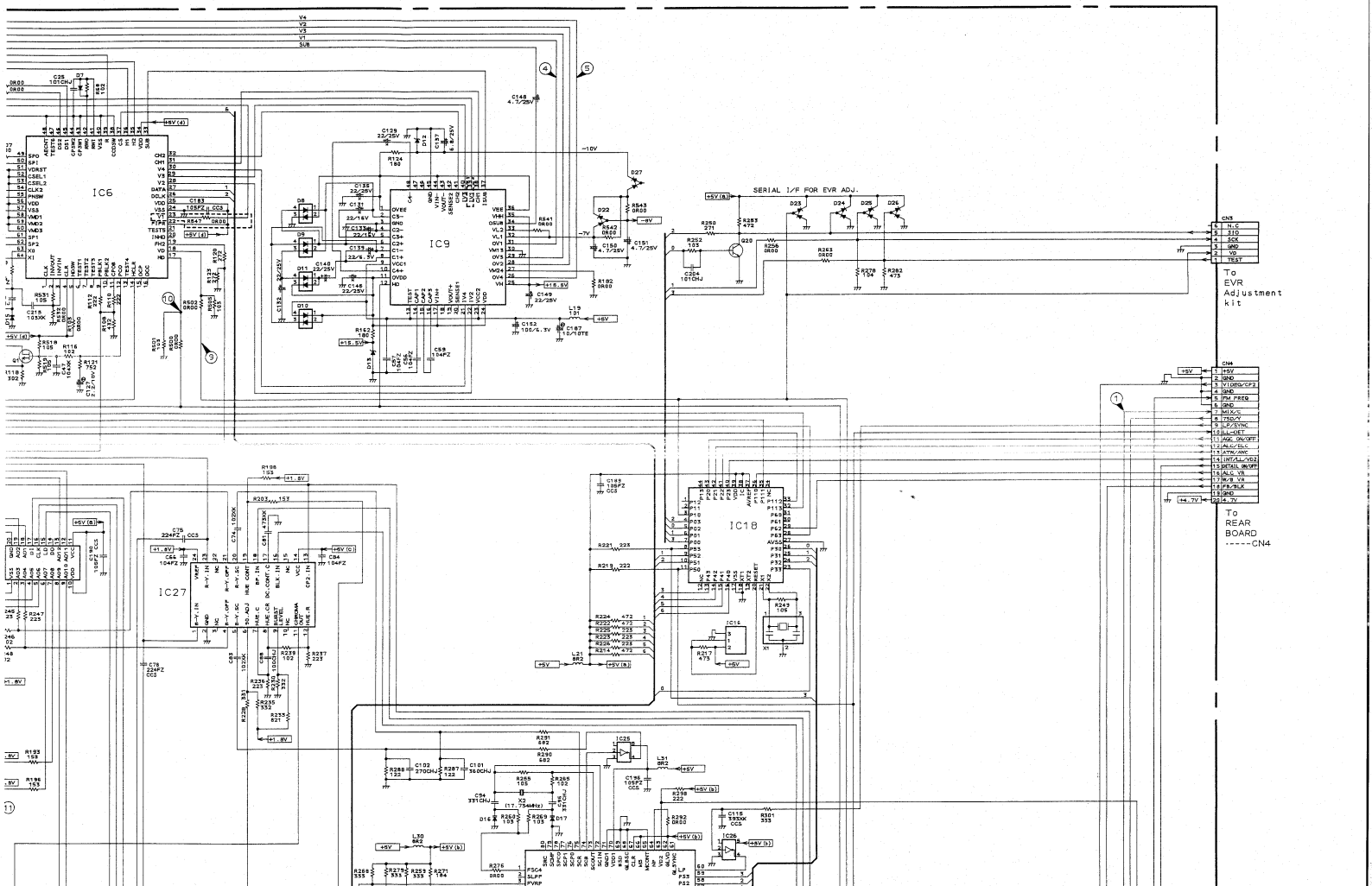


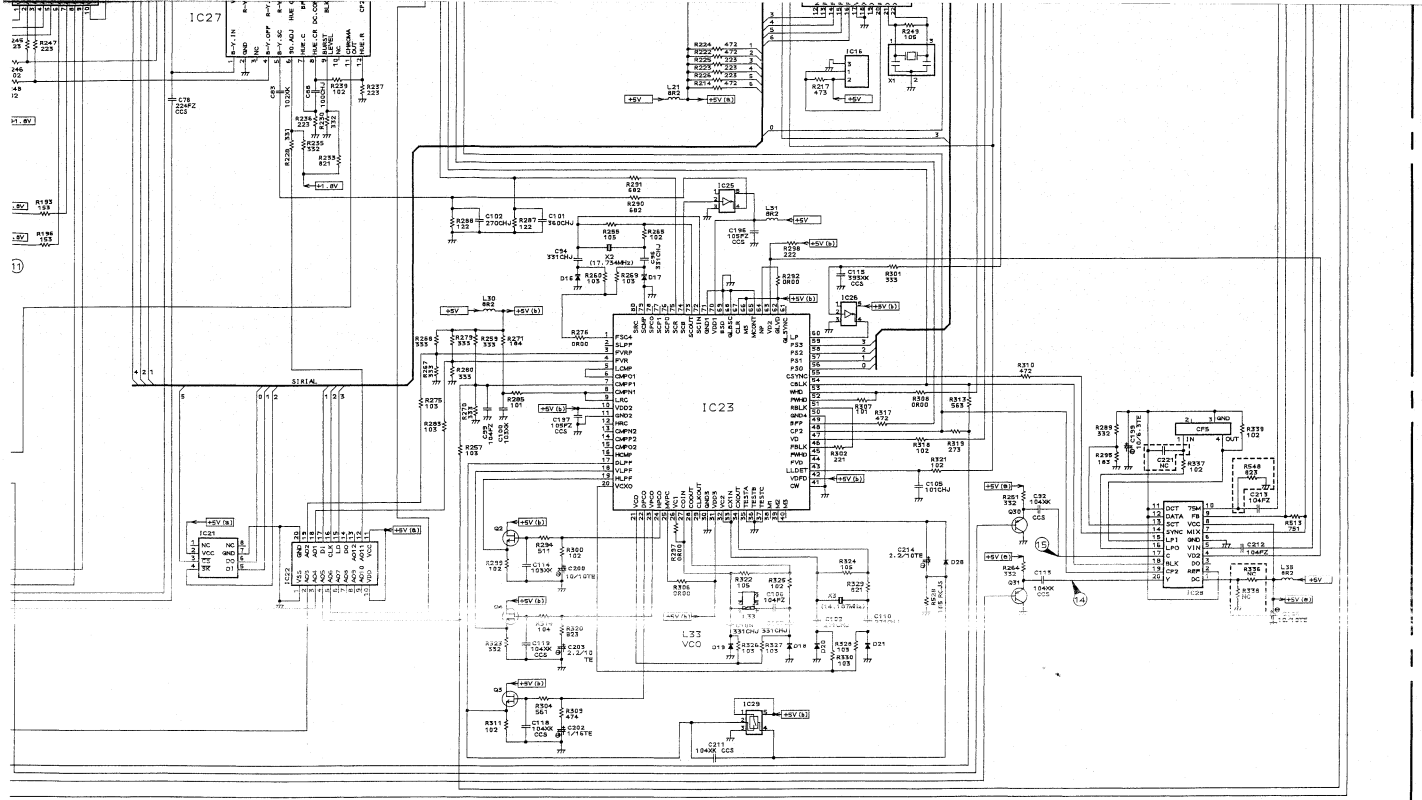
<Index>

MAIN BOARD

IC2	D2	IC26	B7	Q20	E7	D13	D6	D28	B7
IC3	E2	IC27	C5	Q23	D3	D14	D4	D29	E3
IC5	D2	IC28	A8	Q26	B2	D15	D4		
IC6	E5	IC29	A7	Q29	B4	D16	B6		
IC8	C3	Q1	D4	Q30	B7	D17	B6		
IC9	E6	Q2	B6	Q31	A7	D18	A7		
IC10	D3	Q3	A6	Q32	A3	D19	A7		
IC11	E7	Q4	A6	Q33	A3	D20	A7		
IC16	C7	Q11	D1	D2	B3	D21	A7		
IC18	D7	Q12	D1	D7	E4	D22	E6		
IC20	C4	Q13	D2	D8	E5	D23	E7		
IC21	B5	Q15	D2	D9	E5	D24	E7		
IC22	B5	Q16	D2	D10	D5	D25	E7		
IC23	B6	Q17	B2	D11	E5	D26	E8		
IC25	C7	Q19	B2	D12	E6	D27	E7		

DIAGRAM OF MAIN BOARD (WV-CP210)





Note: The value indicated in schematic diagram should be read as follows:

- Multiplier (0 - 5)
- 2nd. Significant Digit (0 - 9)
- 1st. Siginilicant Digit (1 - 9)

<Example>

For Resistor:

330 ⟶ 33 x 10^0 = 33Ω

561 ⟶ 56 x 10^1 = 560Ω

123 ⟶ 12 x 10^3 = 12kΩ

0R00 = 0 Ω

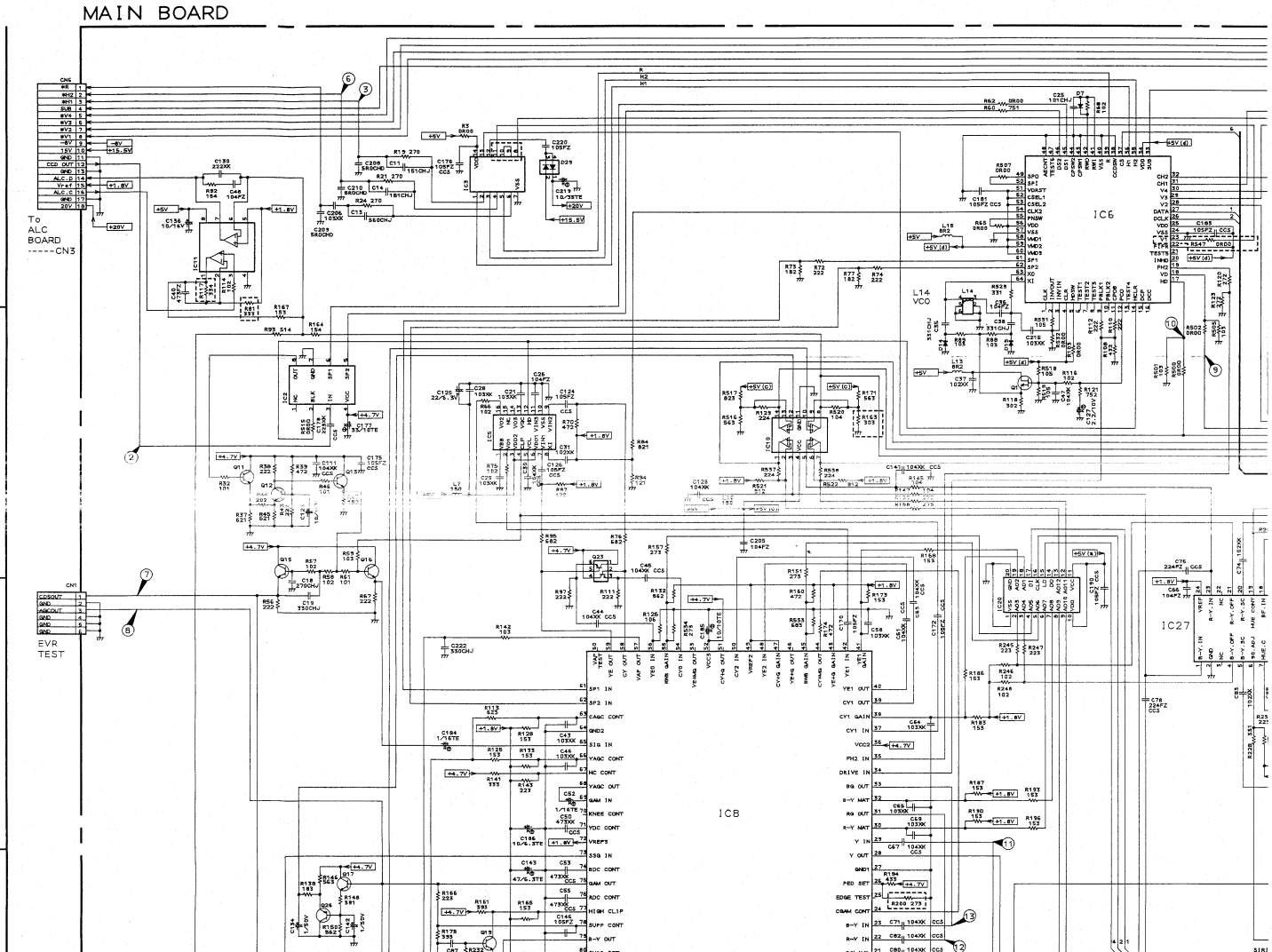
For Capacitor:

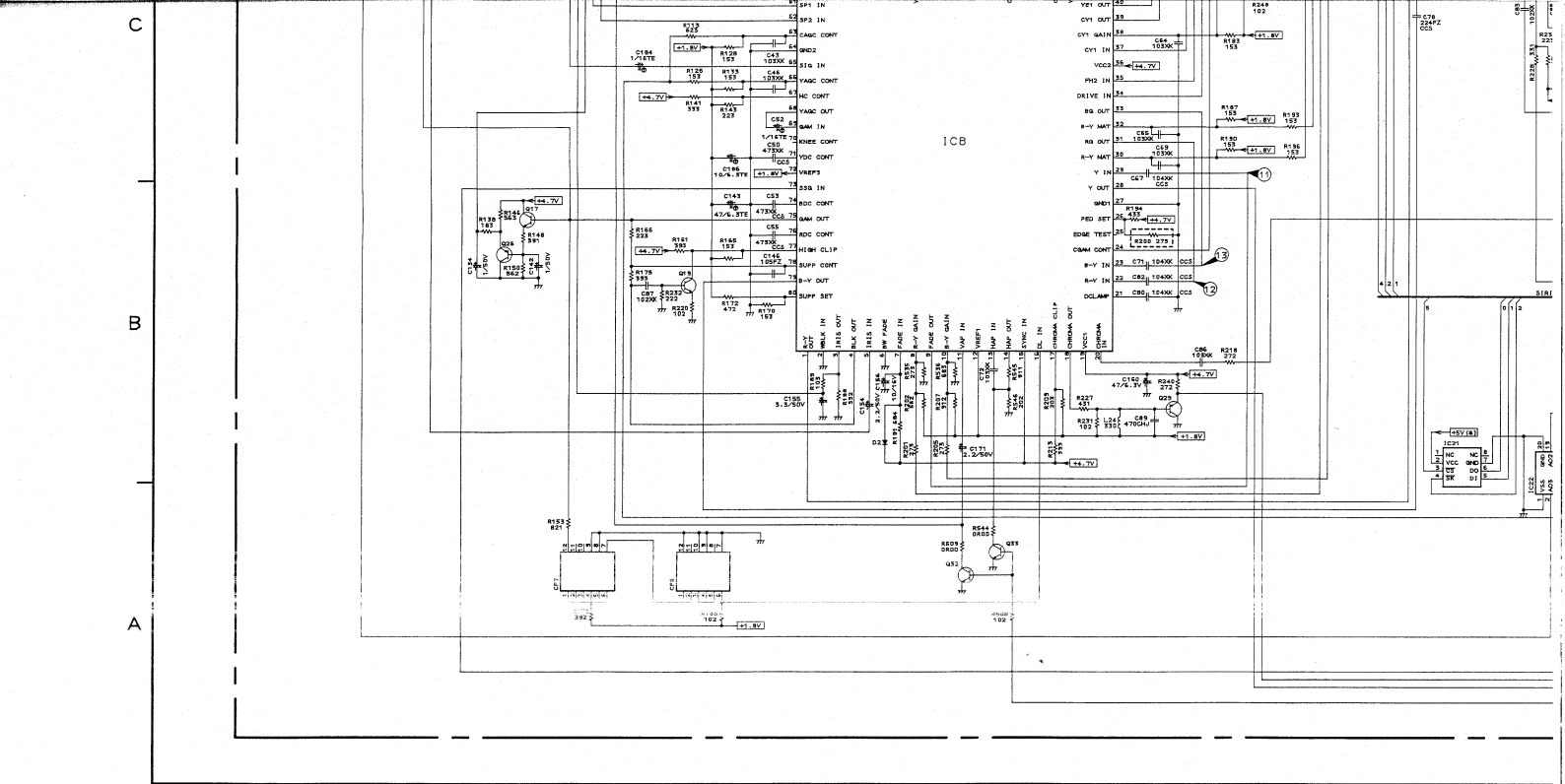
820 ⟶ 82 x 10^0 = 82pF

102 ⟶ 10 x 10^2 = 1000pF = 0.001μF

104 ⟶ 10 x 10^4 = 100000pF = 0.1μF

The suffix attached to capacitance indicates a type of capacitor.


MAIN BOARD
To ALC BOARD -----CN3
EVR TEST
IC5
IC6
IC8
IC27
L14 VCO
E
D
C

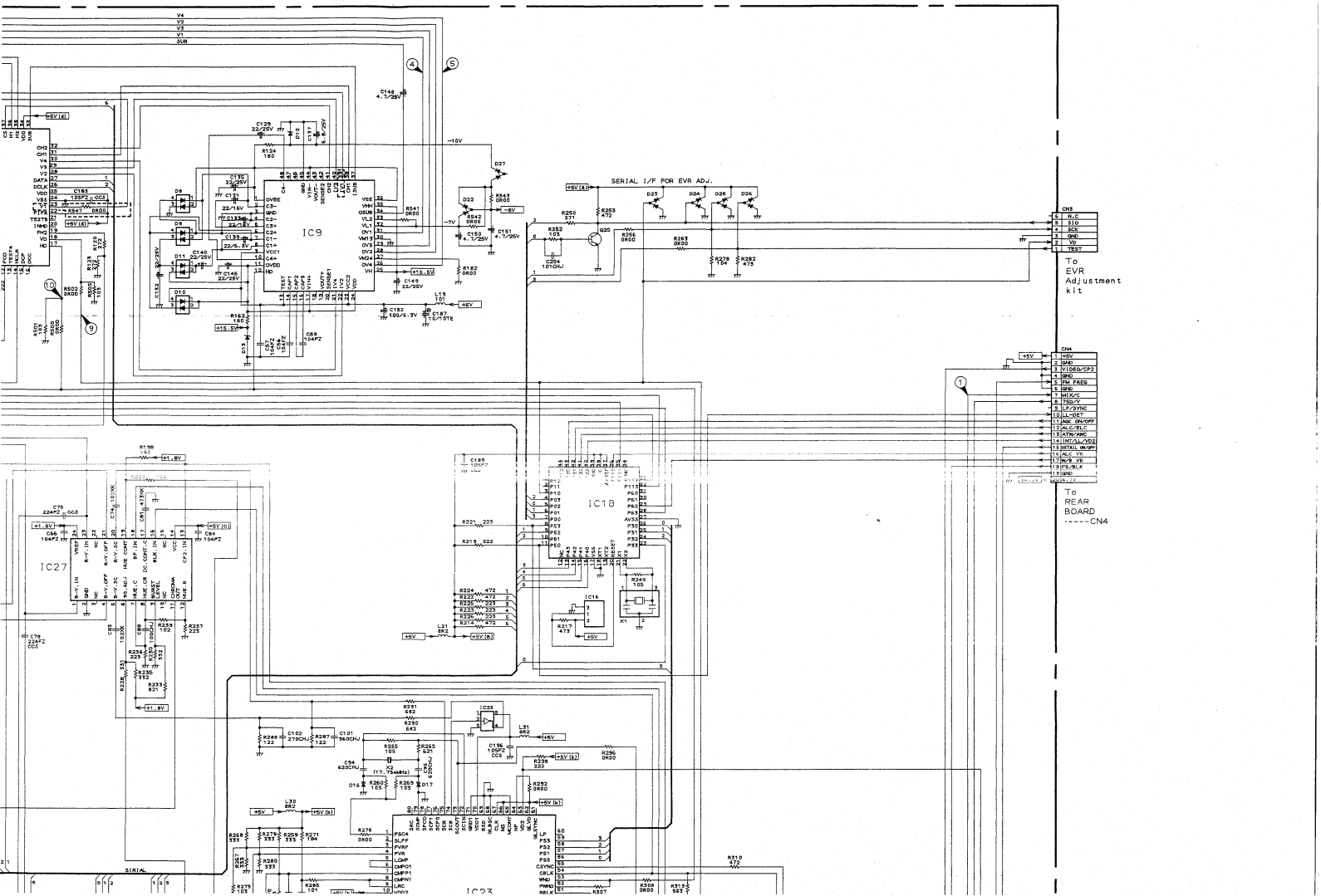


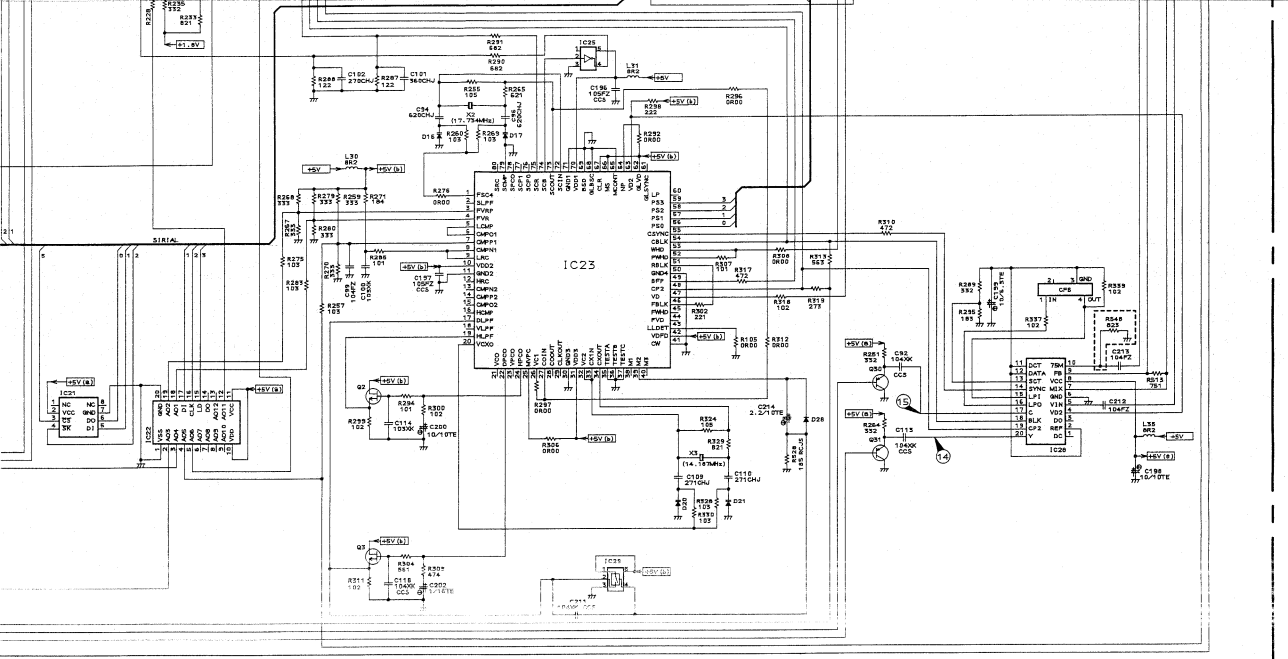
<Index>

MAIN BOARD

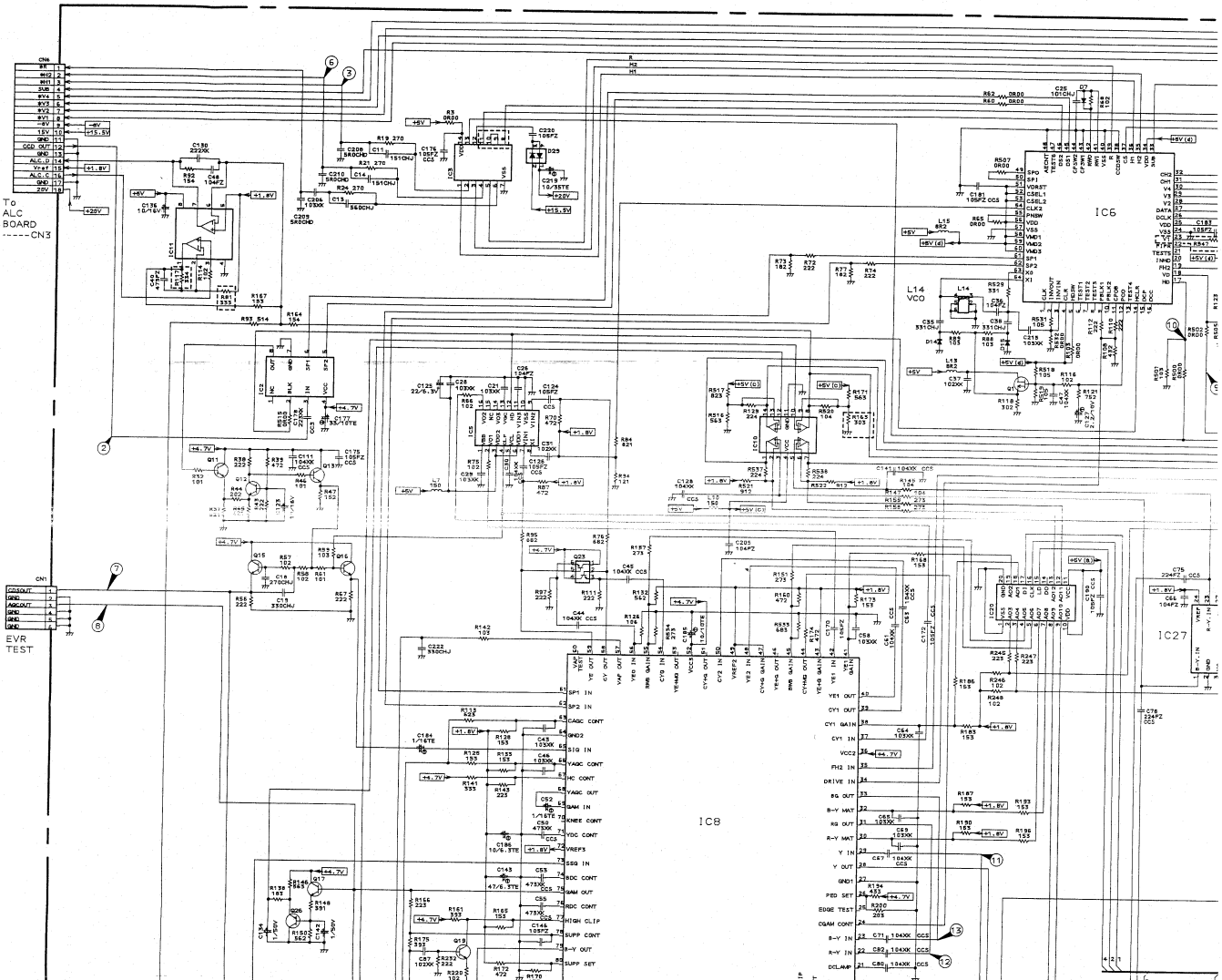
IC2	D2	IC27	C5	Q23	D3	D14	D4
IC3	E2	IC28	A8	Q26	B2	D15	D4
IC5	D2	IC29	A7	Q29	B4	D16	B6
IC6	E5	Q1	D4	Q30	B7	D17	B6
IC8	C3	Q2	B6	Q31	A7	D18	A7
IC9	E6	Q3	A6	Q32	A3	D19	A7
IC10	D3	Q4	A6	Q33	A3	D20	A7
IC11	E7	Q11	D1	D2	B3	D21	A7
IC16	C7	Q12	D1	D7	E4	D22	E6
IC18	D7	Q13	D2	D8	E5	D23	E7
IC20	C4	Q15	D2	D9	E5	D24	E7
IC21	B5	Q16	D2	D10	D5	D25	E7
IC22	B5	Q17	B2	D11	E5	D26	E8
IC23	B6	Q19	B2	D12	E6	D27	E7
IC25	C7	Q20	E7	D13	D6	D28	B7
						D29	E3

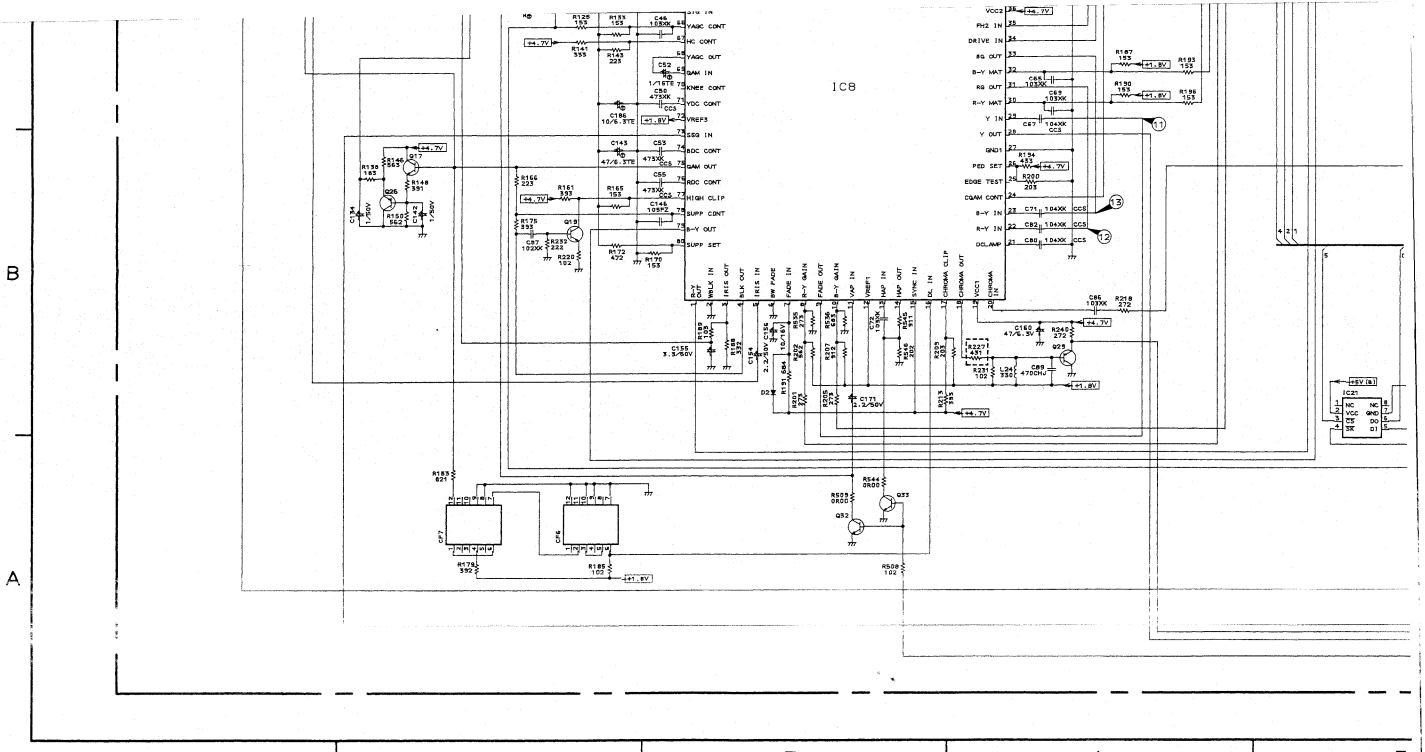
I OF MAIN BOARD (WV-CP212)




IC23
SERIAL
+5V (b)
+8V (b)
+5V
IC21
IC22
IC20
IC35
Q2
Q3
Q30
Q31
X2 (17.734MHz)
X3 (14.187MHz)
D16
D17
D26
D21
L30 8R2
L31 8R2
L35 8R2
C114 103KK
C200 10/10TE
C202 1/16TE
C214 2.2/10TE
C109 27CHJ
C110 27CHJ
C198 10/10TE
C213 104PZ
C212 104PZ
C92 104PK
C113 104PK
C115 104PK CC5
CC3
CC5
CP6
CP5
R310 472
R317 472
R513 563
R519 273
R318 102
R307 474
R308 0R00
R310 472
R339 102
R337 102
R548 823
R513 75/1
R512 0R00
R105 0R00
R212 0R00
R297 0R00
R326 0R00
R296 0R00
R292 0R00
R238 223
R231 682
R290 682
R288 122
R287 122
R285 105
R265 621
R269 105
R260 105
R276 0R00
R278 333
R259 333
R271 104
R267 333
R280 333
R275 105
R289 105
R257 103
R270 104
R286 101
R284 101
R302 102
R233 102
R304 561
R311 102
R235 152
R237 821
R324 105
R329 821
R328 103
R330 103
R302 221
R317 101
R208 0R00

MAIN BOARD



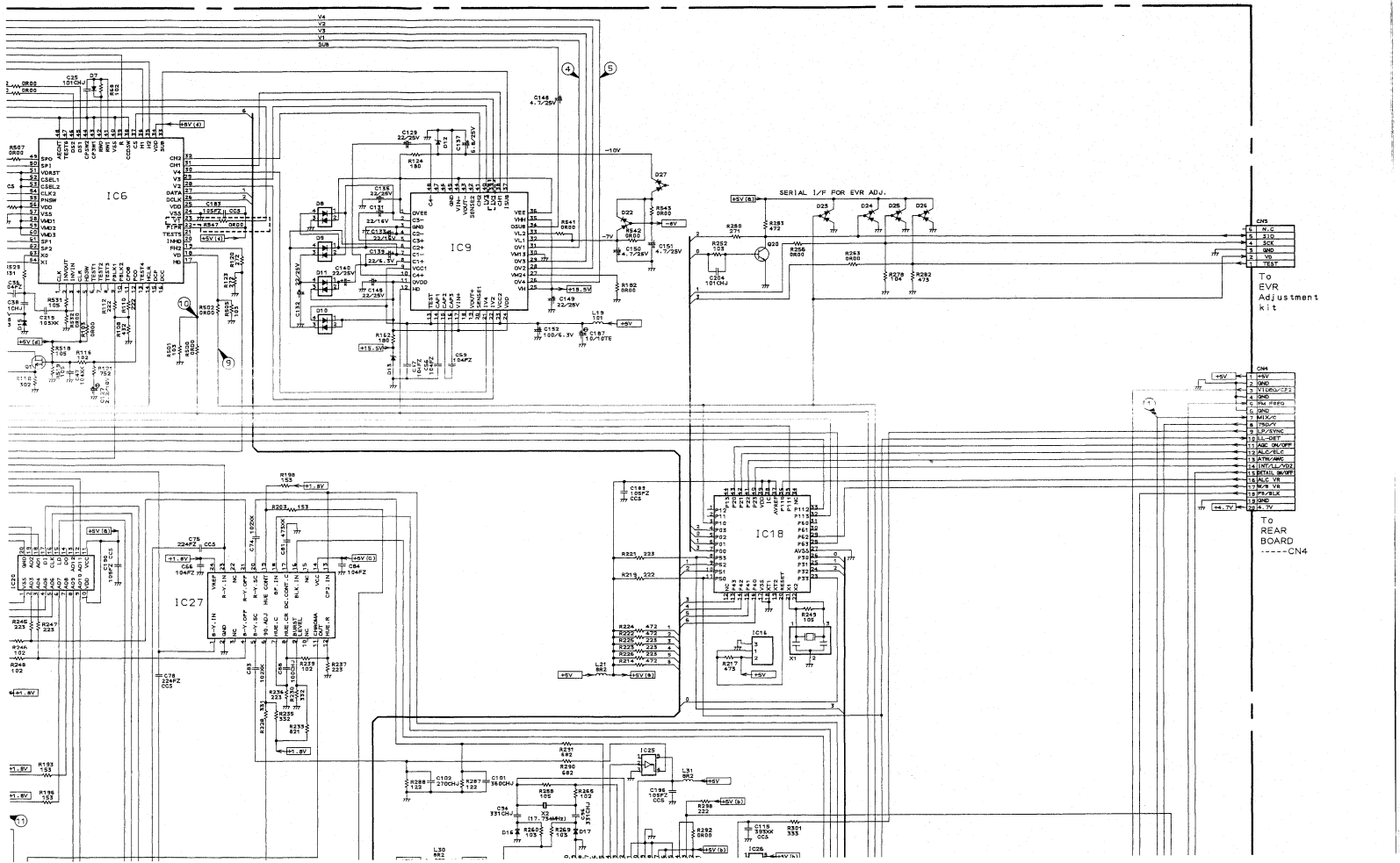


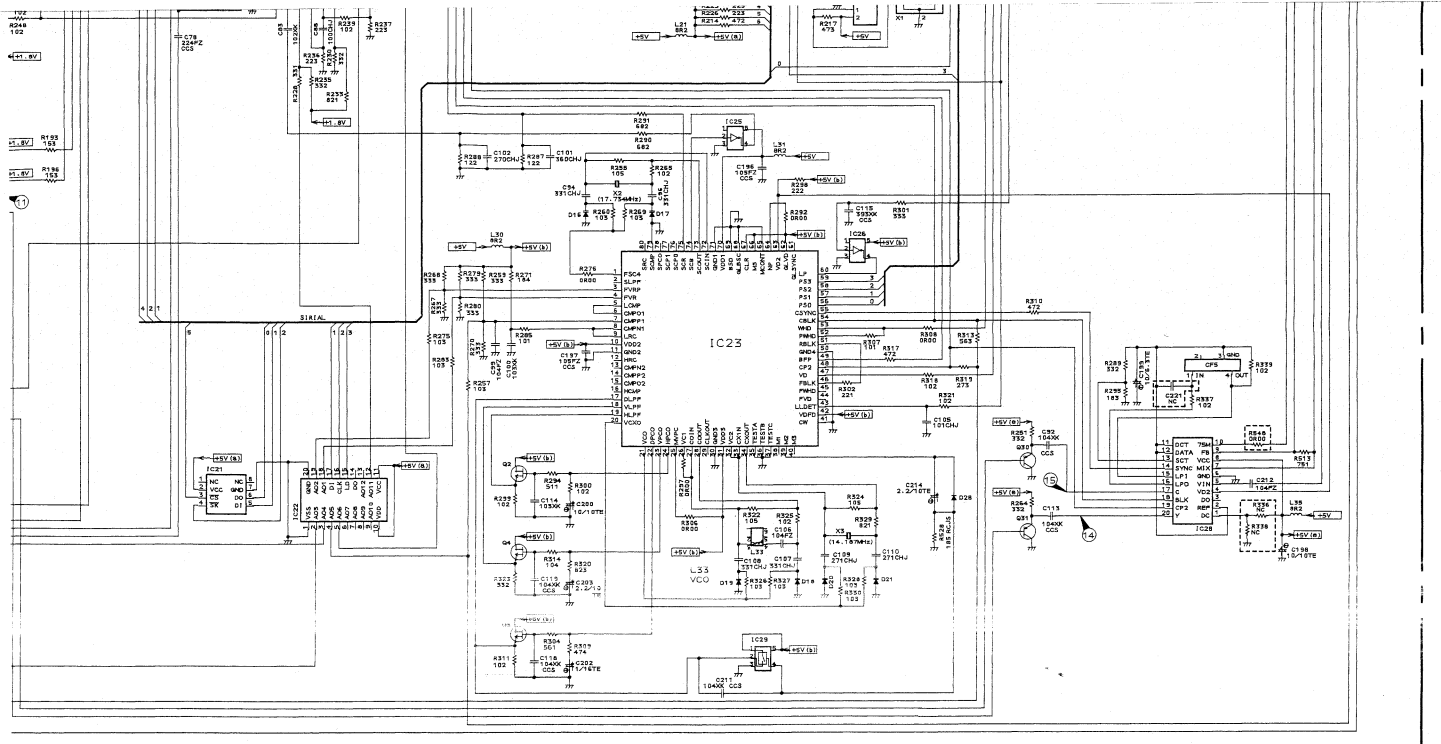
<Index>

MAIN BOARD

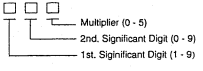
IC2	D2	IC26	B7	Q20	E7	D13	D6	D28	B7
IC3	E2	IC27	C5	Q23	D3	D14	D4	D29	E3
IC5	D2	IC28	A8	Q26	B2	D15	D4		
IC6	E5	IC29	A7	Q29	B4	D16	B6		
IC8	C3	Q1	D4	Q30	B7	D17	B6		
IC9	E6	Q2	B6	Q31	A7	D18	A7		
IC10	D3	Q3	A6	Q32	A3	D19	A7		
IC11	E7	Q4	A6	Q33	A3	D20	A7		
IC16	C7	Q11	D1	D2	B3	D21	A7		
IC18	D7	Q12	D1	D7	E4	D22	E6		
IC20	C4	Q13	D2	D8	E5	D23	E7		
IC21	B5	Q15	D2	D9	E5	D24	E7		
IC22	B5	Q16	D2	D10	D5	D25	E7		
IC23	B6	Q17	B2	D11	E5	D26	E8		
IC25	C7	Q19	B2	D12	E6	D27	E7		

DIAGRAM OF MAIN BOARD (WV-CP214)





Note: The value indicated in schematic diagram should be read as follows:



<Example>

For Resistor:

330 ⟶ 33×10^{0} = 33Ω

561 ⟶ 56×10^{1} = 560Ω

123 ⟶ 12×10^{3} = 12kΩ

0R00 = 0 Ω

For Capacitor:

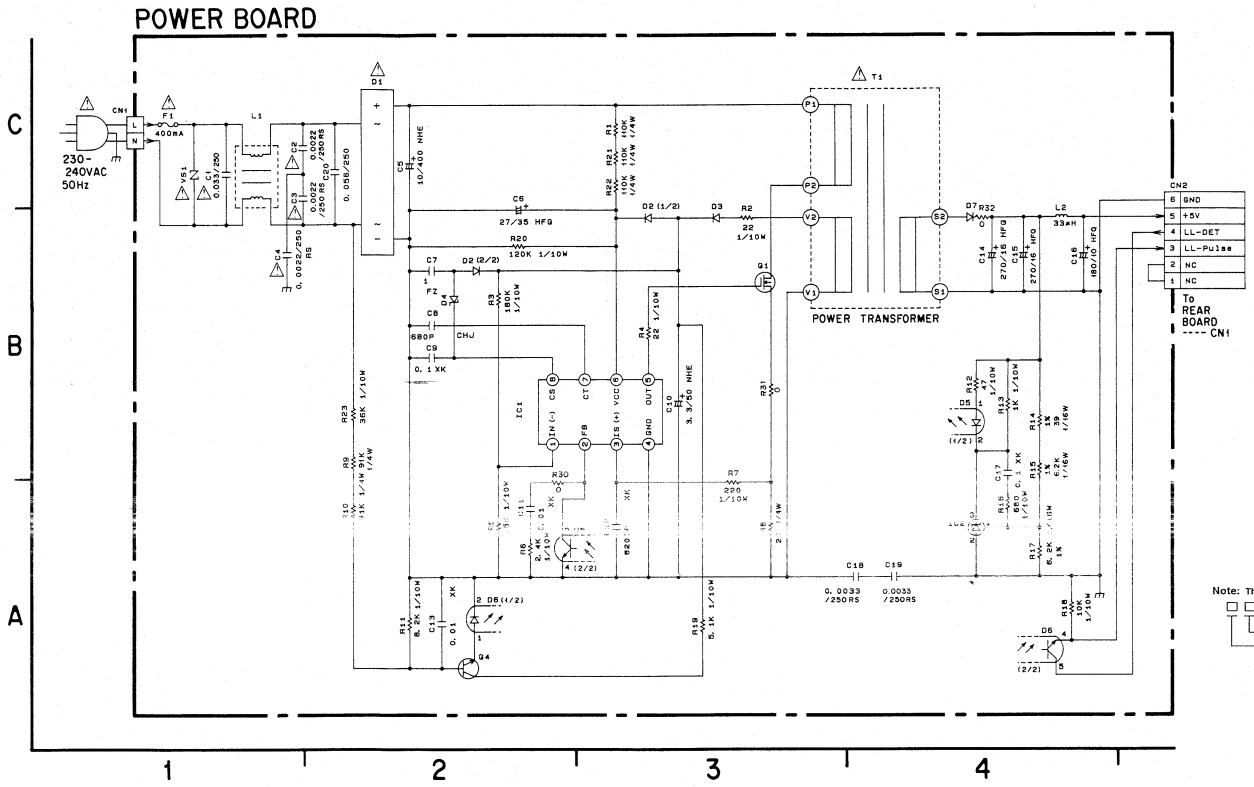
820 ⟶ 82×10^{0} = 82pF

102 ⟶ 10×10^{2} = 1000pF = 0.001μF

104 ⟶ 10×10^{4} = 100000pF = 0.1μF

The suffix attached to capacitance indicates a type of capacitor.

SCHEMATIC DIAGRAM OF POWER BOARD (WV-CP210)



<Index>

POWER BOARD

IC1	B2
IC2	A4
Q1	B3
Q4	A2
D1	C2
D2	B2,B3
D3	B3
D4	B2
D5	A2,B4
D6	A2,A4
D7	B4

Note: The value indicated in schematic diagram should be read a

Multiplier (0 - 5)
2nd. Significant Digit (0 - 9)
1st. Significant Digit (1 - 9)

<Example>

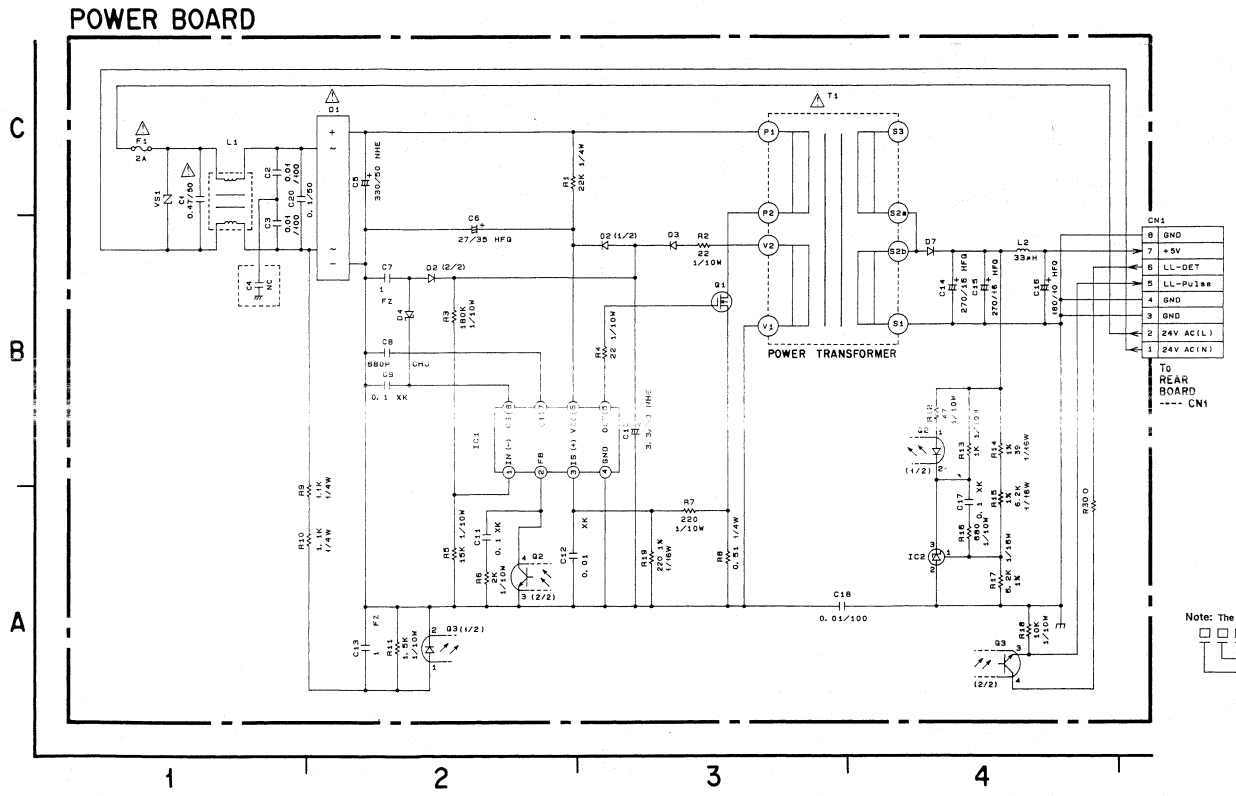
For Resistor:
330 ⟶ 33 x 10^0
561 ⟶ 56 x 10^1
123 ⟶ 12 x 10^2
0R00 = 0 Ω

For Capacitor:
820 ⟶ 82 x 10^0
102 ⟶ 10 x 10^{-2}
104 ⟶ 10 x 10^4

The suffix attached
a type of capacitor.

SCHEMATIC DIAGRAM OF POWER BOARD (WV-CP214)

SCHEMATIC DIAGRAM OF POWER BOARD (WV-CP214)



<Index>

POWER BOARD

IC1	B2
IC2	A4
Q1	B3
Q2	A2,B4
Q3	A2,A4
D1	C2
D2	B2,B3
D3	B3
D4	B2
D7	B4

Note: The value indicated in schematic diagram should be read as f

Multiplier (0 - 5)
2nd. Significant Digit (0 - 9)
1st. Significant Digit (1 - 9)

<Example>

For Resistor:

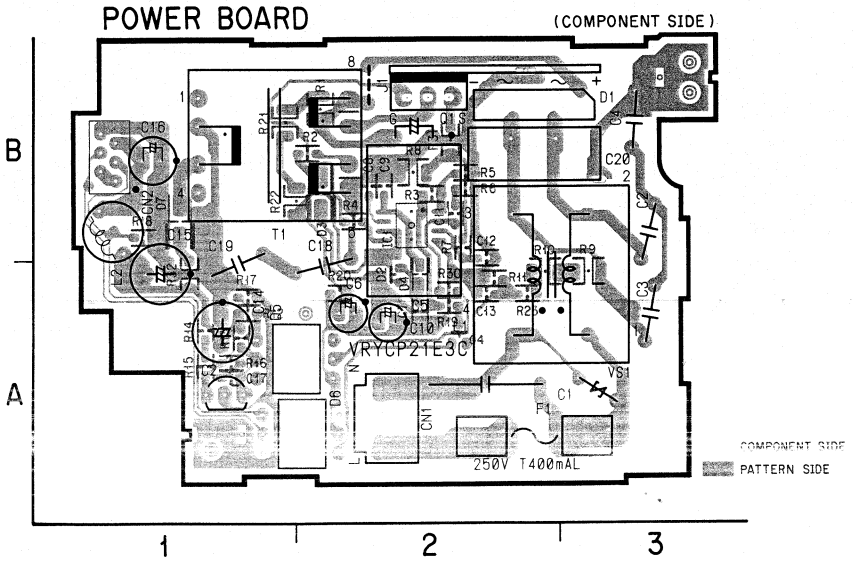
330 → 33 x 10^0 = 33
561 → 56 x 10^1 = 56
123 → 12 x 10^2 = 12
0R00 = 0 Ω

For Capacitor:

820 → 82 x 10^0 = 8
102 → 10 x 10^2 = 1
104 → 10 x 10^4 = 1

The suffix attached to c a type of capacitor.

CONDUCTOR VIEW OF POWER BOARD (WV-CP210)



<Index>

POWER BOARD

IC1	B2
IC2	A1
Q1	B2
Q4	A2
D1	B3
D2	A2
D3	B2
D4	A2
D5	A1
D6	A2
D7	B1

BOARD

B3

B4
A4

schematic diagram should be read as follows:

<Example>

For Resistor:

5)
nt Digit (0 - 9)
nt Digit (1 - 9)

330 ⟶ 33×10^0 = 33Ω
561 ⟶ 56×10^1 = 560Ω
123 ⟶ 12×10^3 = 12kΩ
0R00 = 0 Ω

For Capacitor:

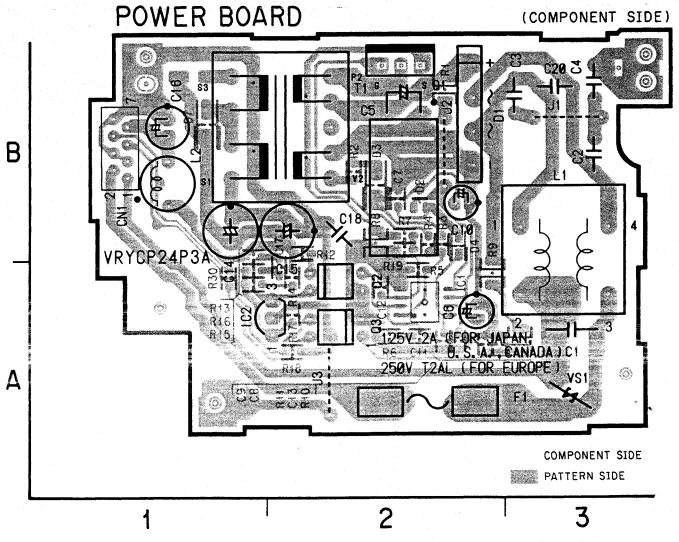
820 ⟶ 82×10^0 = 82pF
102 ⟶ 10×10^2 = 1000pF = 0.001μF
104 ⟶ 10×10^4 = 100000pF = 0.1μF

The suffix attached to capacitance indicates a type of capacitor.

CONDUCTOR VIEW OF POWER BOARD (WV-CP214)

D2 A2
D3 B2
D4 A2
D5 A1
D6 A2
D7 B1

CONDUCTOR VIEW OF POWER BOARD (WV-CP214)



ix>

R BOARD
32
M
33
M2,B4
M2,A4
32
32,B3
33
32
34

ematic diagram should be read as follows:

<Example>

For Resistor:

git (0 - 9)
pt (1 - 9)

330 ⟶ 33×10^{0} = 33Ω
561 ⟶ 56×10^{1} = 560Ω
123 ⟶ 12×10^{3} = 12kΩ
0R00 = 0 Ω

For Capacitor:

820 ⟶ 82×10^{0} = 82pF
102 ⟶ 10×10^{2} = 1000pF = 0.001μF
104 ⟶ 10×10^{4} = 100000pF = 0.1μF

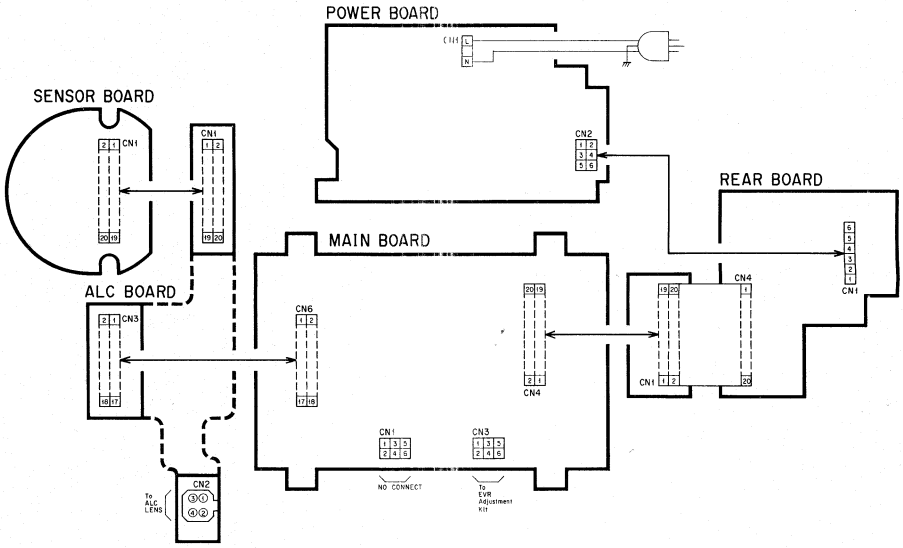
The suffix attached to capacitance indicates a type of capacitor.

<Index>

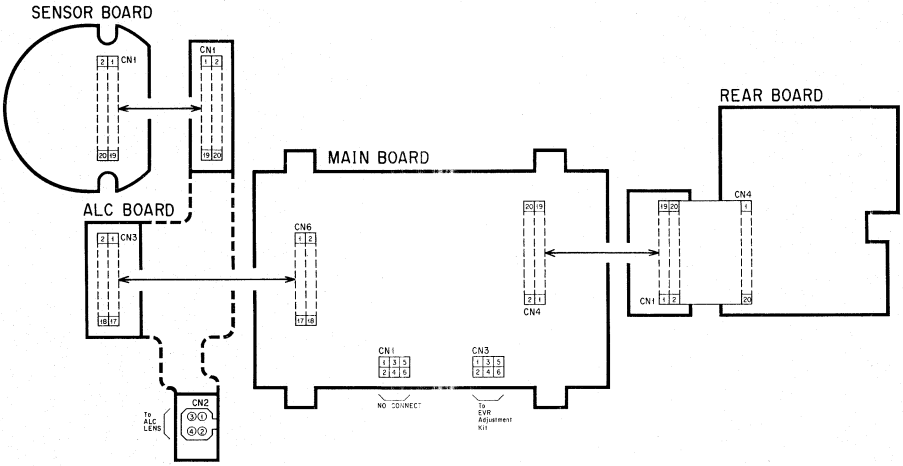
POWER BOARD

IC1 A2
IC2 A1
Q1 B2
Q2 A2
Q3 A2
D1 B2
D2 B2
D3 B2
D4 B2
D7 B1

WV-CP210

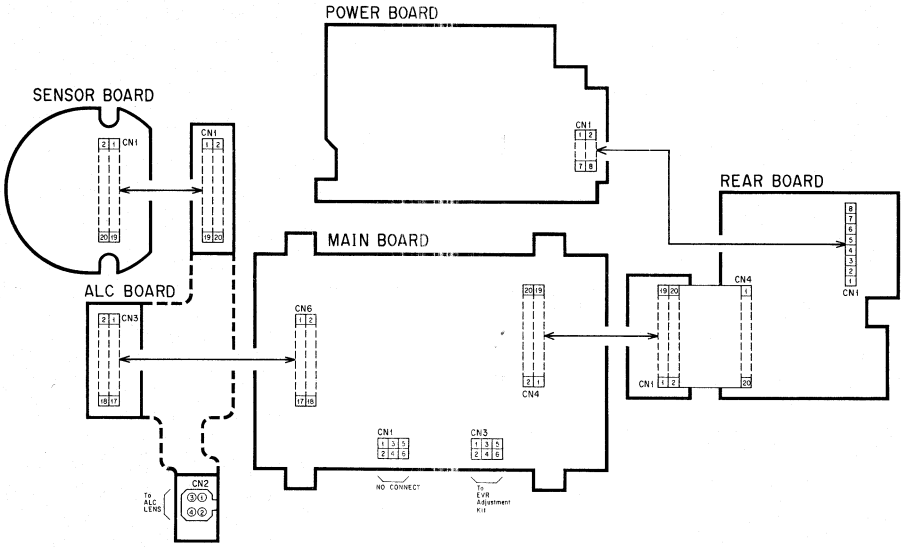


WV-CP212

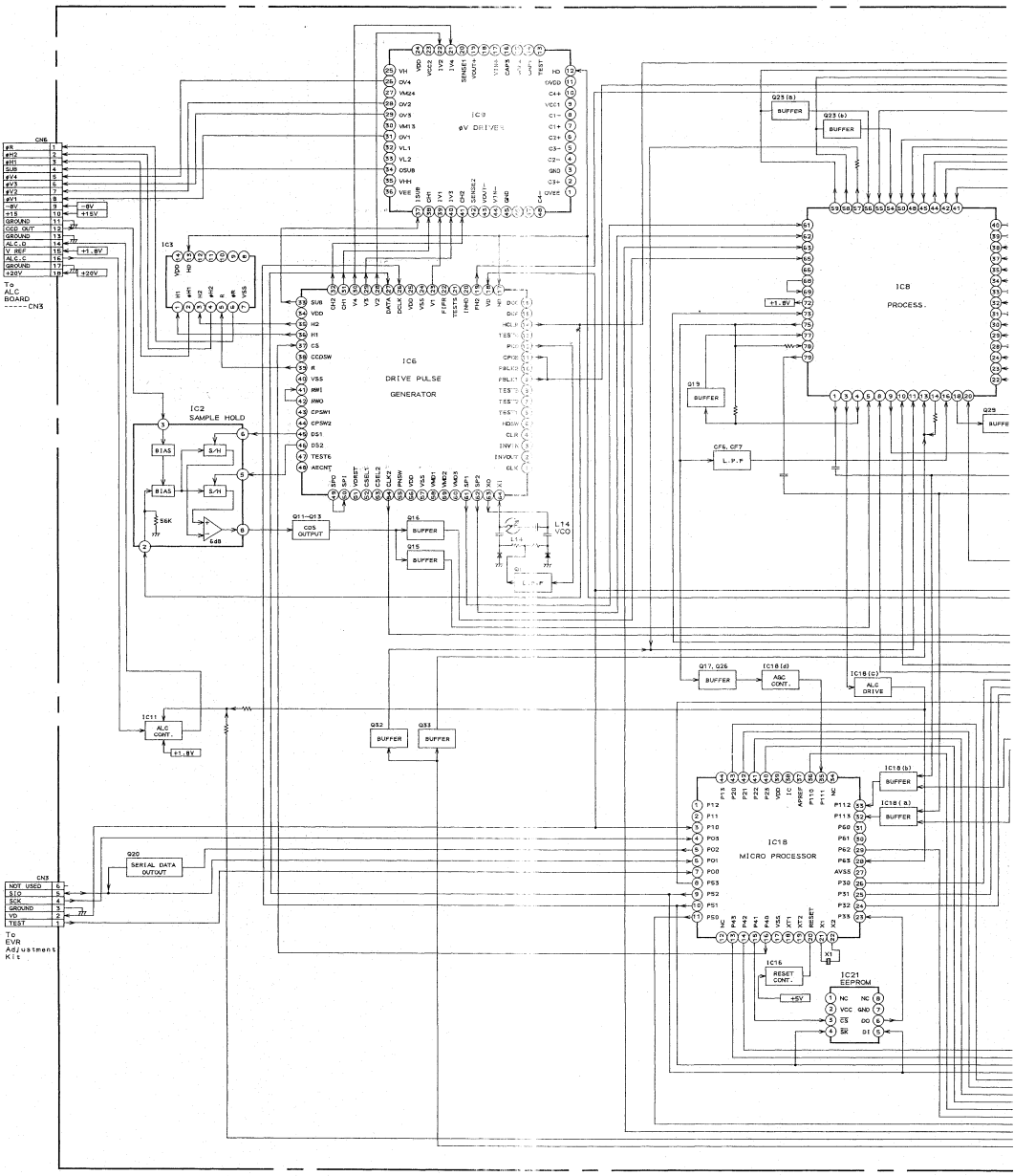


WIRING DIAGRAM

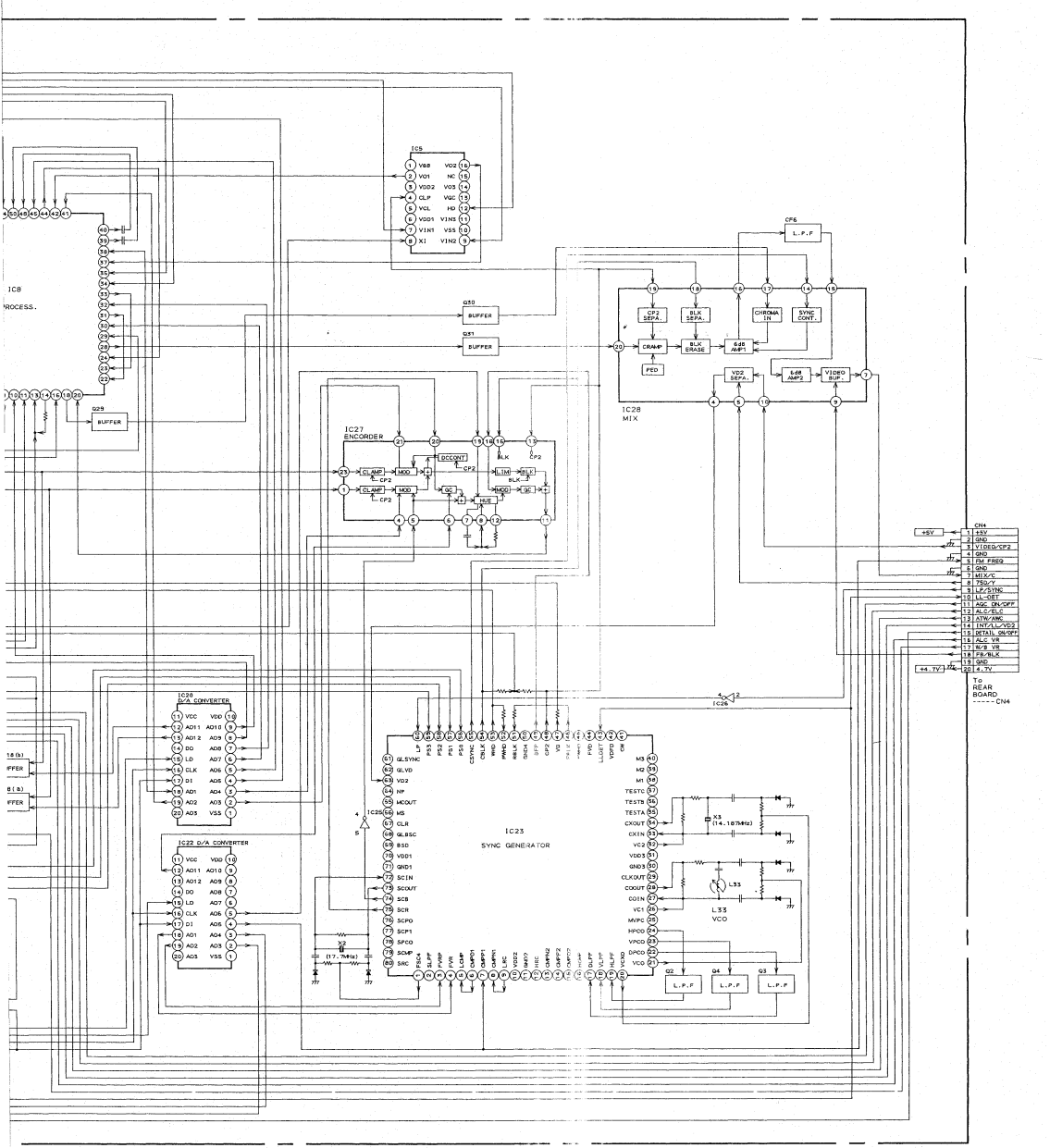
WV-CP214



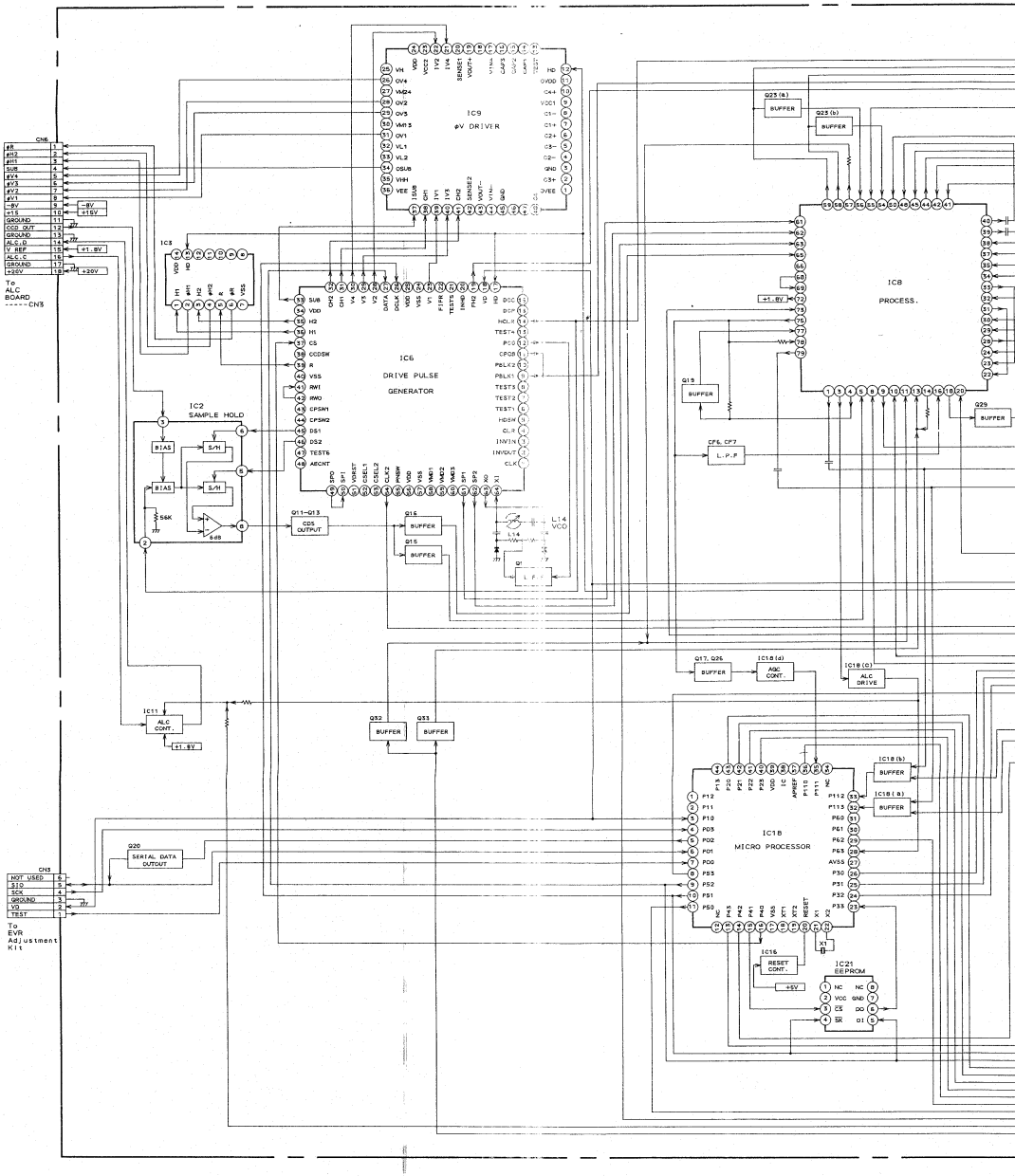
MAIN BOARD


IC3
φV DRIVER
IC6
DRIVE PULSE
GENERATOR
IC2
SAMPLE HOLD
IC8
PROCESS.
IC18
MICRO PROCESSOR
IC16
RESET
CONT.
IC21
EEPROM
IC11
ALC
CONT.
Q20
SERIAL DATA
OUTPUT
Q25
OUTPUT
L14
VCO
L.P.F
BUFFER
S/H
BIAS
6dB
56K
+8V
+15V
+1.8V
+20V
+5V
To
ALC
BOARD
CN3
To
EVR
Adjustment
Kits

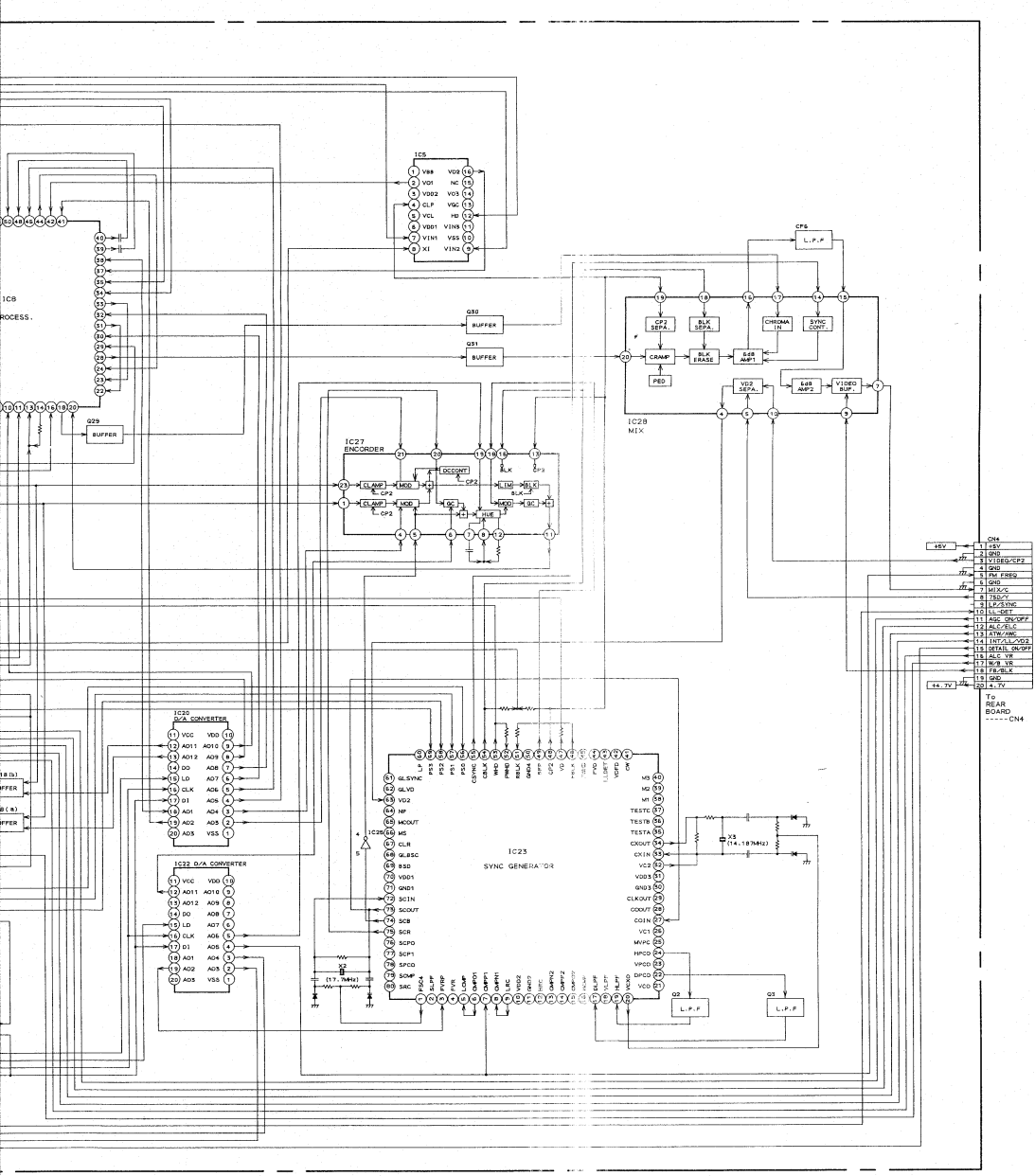
IN BOARD (WV-CP210, WV-CP214)



MAIN BOARD


IC9
8V DRIVER
IC6
DRIVE PULSE
GENERATOR
IC8
PROCESS.
IC2
SAMPLE HOLD
IC18
MICRO PROCESSOR
IC21
EEPROM
IC16
RESET
CONT.
IC11
ALC
CONT.
IC18(d)
AGC
CONT.
IC18(c)
ALC
DRIVE
IC18(b)
BUFFER
IC18(a)
BUFFER
Q25(a)
BUFFER
Q25(b)
BUFFER
Q19
BUFFER
Q29
BUFFER
Q17, Q26
BUFFER
Q32
BUFFER
Q33
BUFFER
Q16
BUFFER
Q15
BUFFER
Q11~Q13
CDS
OUTPUT
Q20
SERIAL DATA
OUTOUT
CF6, CF7
L.P.F
L14
VCO
Q1
L.P.F
CN6
CN5
To
ALC
BOARD
-----CN5
To
EVR
Adjustment
Kit

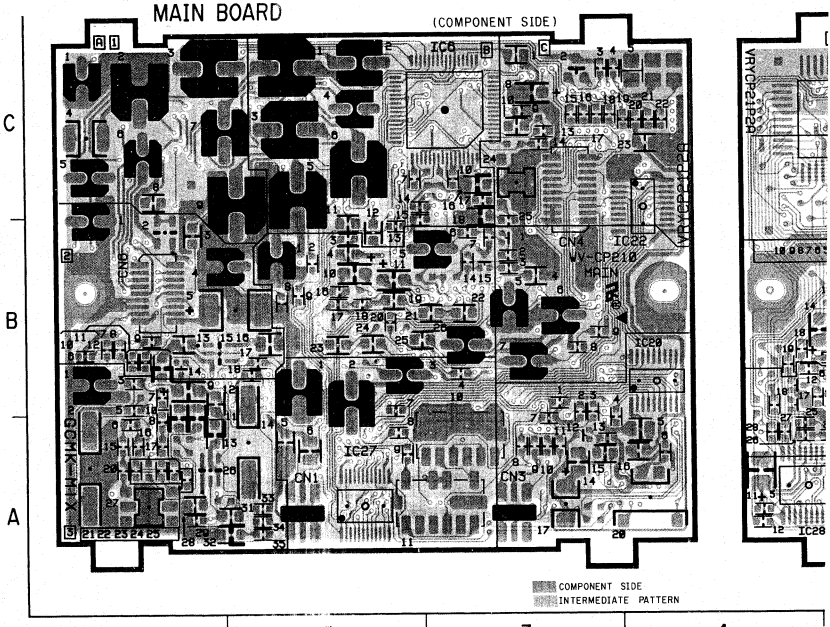
F MAIN BOARD (WV-CP212)



<Index>

Component side parts are follows.

Ref.No	Index	Ref.No	Index	Ref.No	Index
IC6	C6	R245	3-C-4	C132	1-B-5
IC16	1-C-2	R246	3-C-2	C133	1-B-2
IC20	B4	R247	3-C-3	C134	2-B-5
IC22	B4	R248	3-C-1	C135	1-B-1
IC26	2-A-15	R249	1-C-4	C136	3-A-1
IC27	A2	R256	3-C-11	C137	1-A-1
IC29	3-A-26	R260	3-A-33	C139	1-B-4
Q17	2-B-15	R263	3-C-8	C140	1-A-9
Q26	2-C-1	R264	3-C-13	C142	2-C-5
Q31	3-C-12	R269	3-A-35	C143	3-B-1
D14	1-B-18	R276	3-C-10	C145	1-B-6
D15	1-B-16	R282	3-C-9	C146	2-C-4
D17	3-A-32	R297	3-A-16	C148	1-A-5
D18	3-A-11	R298	2-A-18	C149	1-B-3
D19	3-A-10	R301	2-A-17	C150	2-A-1
D20	3-A-13	R311	3-A-29	C151	1-A-6
D21	2-A-12	R322	3-A-6	C152	1-A-2
D28	2-A-14	R325	3-A-15	C154	3-B-3
D29	2-A-2	R326	3-A-24	C155	2-C-6
R43	2-B-8	R327	3-A-25	C156	2-B-26
R65	1-B-10	R328	3-A-7	C160	3-B-2
R66	2-B-9	R329	3-A-5	C170	2-B-23
R67	2-B-16	R330	3-A-17	C171	2-C-7
R75	2-B-2	R507	1-B-7	C172	2-B-24
R89	1-B-17	R516	1-B-14	C178	2-A-3
R92	2-A-11	R517	1-B-15	C183	1-C-1
R93	2-A-8	R519	1-C-9	C184	2-B-10
R114	2-A-6	R528	3-A-12	C189	1-C-23
R126	2-B-4	R531	1-C-13	C190	3-C-16
R128	2-B-17	C35	1-C-25	C196	3-B-5
R138	2-B-6	C43	2-B-18	C197	3-A-28
R142	2-B-20	C47	1-C-10	C198	3-C-17
R145	2-B-3	C48	2-A-10	C211	3-A-31
R146	2-B-7	C50	2-B-19	C214	3-A-9
R147	1-B-13	C52	2-B-11	C215	1-C-14
R148	2-C-3	C53	2-B-21	C219	2-A-5
R150	2-C-2	C55	2-B-22	C220	1-A-8
R153	3-B-9	C67	2-B-25	C221	3-C-6
R164	2-A-7	C96	3-A-34	C222	2-C-9
R166	2-B-14	C106	3-A-20	L14	1-C-24
R168	3-B-7	C107	3-A-21	L19	1-A-4
R174	3-B-4	C108	3-A-23	L21	3-C-5
R179	3-C-7	C109	3-A-8	L30	2-A-16
R203	3-B-8	C110	3-A-3	L31	3-B-6
R207	2-C-8	C113	3-C-15	L33	3-A-27
R214	1-C-22	C115	2-A-13	L35	3-C-14
R217	1-C-3	C123	2-A-4	X1	1-C-5
R219	1-C-15	C124	1-B-12	X2	3-A-14
R221	1-C-16	C125	2-B-1	X3	3-A-2
R222	1-C-18	C126	1-B-11	CF5	3-C-20
R223	1-C-20	C127	1-C-8	CF6	3-B-10
R224	1-C-17	C129	1-A-3	CF7	3-B-11
R225	1-C-19	C130	2-A-9		
R226	1-C-21	C131	1-A-7		



<Voltages>

MAIN BOARD

	IC2	IC3	IC5	IC10	IC11	IC16	IC20	IC21	IC22	IC23	IC25	IC26	IC28	IC29	IC27
Pin 1	1.5	1.1	-2.8	2.4	1.7	4.6	0	-0.2	0	4.5	0	0	2.4	4.6	1.7
2	0.4	2.5	3.0	1.7	1.7	4.6	1.7	4.8	3.3	1.5	2.3	1.9	1.9	4.1	0
3	2.6	1.5	4.8	1.7	1.7	0	2.0	0	1.3	1.0	0	0	0	0	0.1
4	4.5	2.1	0.2	4.8	0		3.1	0.1	3.4	4.5	2.2	2.5	4.8	0	1.7
5	0.5	3.0	2.4	1.7	1.7		2.5	0.2	3.2	1.5	4.6	4.6	1.9	4.6	0.2
6	0.5	1.1	4.8	1.7	1.7		1.8	0.7	4.8	1.0			0		0.3
7	0	0	2.5	2.4	1.8		1.6	0	4.8				2.0		2.9
8	1.6	4.8	2.1	1.4	4.8		1.9	-0.2	2.0				4.8		2.7
9		0	2.5	1.7			1.5		4.8				2.0		1.6
10		4.8	0	1.7			4.8		4.8				1.9		0
11		0	2.4	0			4.8		4.8				1.9		2.6
12		4.1	0.4	1.8			1.6		0.5				1.6		2.9
13		0.7	1.7	1.8			1.7		4.8				1.6		0.2
14		4.8	2.7	1.0			1.2		1.3				4.4		4.8
15			0.1				0		0				2.0		0.1
16			3.0				0.1		0.1				2.0		1.2
17							0.2		0.2				1.9		3.1
18							1.6		2.1				1.2		0.8
19							1.6		-0.1				0.2		1.9
20							0		0				2.9		1.9
21															1.7
22															1.7
23															0
24															1.7

	IC6	IC8	IC23
Pin 1	1.4	2.0	0.9
2	2.2	0	0.3
3	0	1.7	2.3
4	4.9	1.8	2.1
5	4.9	1.8	4.7
6	0	0	4.7
7	0	4.4	2.6
8	0	1.5	0
9	1.0	2.1	0
10	0.8	1.6	4.7
11	0	1.7	0
12	1.6	1.7	2.2
13	0	1.7	2.2
14	0	2.4	2.2
15	0.5	4.5	4.8
16	0.1	1.8	1.1
17	0.3	2.7	0.2
18	0.9	2.5	0.9
19	2.4	4.5	2.3
20	0.5	4.5	0.9
21	4.8	1.7	1.1
22	4.8	1.7	0
23	4.5	1.7	0
24	0	1.9	4.8
25	4.7	2.8	4.8
26	0.1	1.4	0.3
27	0.2	0	0
28	0.2	1.9	4.8
29	4.6	1.9	0.2
30	0.2	1.5	0
31	4.8	1.9	4.8
32	4.8	2.1	2.5
33	4.8	2.1	2.5
34	4.8	0.4	0.2
35	1.5	1.2	0
36	1.1	4.5	0
37	4.2	1.6	0
38	0	1.7	0.4
39	3.2	2.0	0
40	0	2.0	0.4

	IC6	IC8	IC23
Pin 41	1.1	1.7	0
42	2.2	1.7	4.8
43	0	1.7	0.2
44	0	1.9	0.2
45	1.2	1.6	0.8
46	1.2	1.9	1.1
47	0	1.7	0.2
48	0	1.7	0.2
49	1.2	1.7	0.2
50	1.4	1.9	0
51	4.8	1.9	1.1
52	4.8	4.7	0.7
53	4.8	1.9	0.7
54	4.0	1.9	1.2
55	4.8	1.7	4.4
56	4.8	1.9	0
57	0	0.3	0
58	4.8	1.9	0
59	4.8	0.1	0
60	4.8	2.5	4.8
61	3.9	0.6	0
62	3.9	0.6	4.8
63	2.5	1.7	4.8
64	2.5	0	4.8
65		1.7	0
66		1.5	4.8
67		2.8	4.8
68		1.8	0
69		1.8	0
70		1.8	4.8
71		3.1	0
72		1.7	2.4
73		0.5	2.4
74		3.1	2.4
75		1.9	2.3
76		3.1	4.8
77		2.5	4.8
78		1.9	1.0
79		2.1	0
80		1.3	0

	IC9	IC18
Pin 1	-9.0	0.2
2	8.8	0.2
3	0	0.2
4	0	0.2
5	3.2	0.2
6	6.3	0
7	5.3	0.2
8	2.2	0
9	3.7	0.2
10	9.0	0.1
11	13.7	0.1
12	0.7	0.1
13	4.4	0
14	8.4	0
15	3.9	0.1
16	-4.1	4.1
17	13.8	0
18	0.1	0
19	12.5	4.8
20	4.2	4.8
21	0.2	2.4
22	0.1	2.1
23	4.4	1.9
24	13.8	0

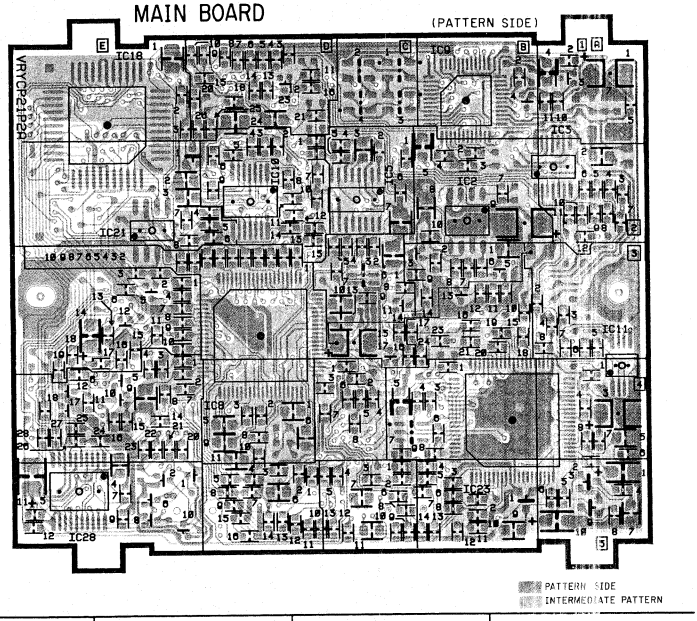
	IC9	IC18
Pin 25	13.6	0
26	0.6	0
27	0	0
28	0.7	1.5
29	-6.0	1.7
30	0	0
31	-5.8	0
32	-6.2	2.4
33	-9.1	2.5
34	-9.1	0
35	13.6	1.8
36	-9.1	2.0
37	4.7	4.8
38	4.7	4.8
39	4.3	4.8
40	4.5	0
41	4.7	0
42	-5.8	0
43	-8.2	0
44	-9.1	0.1
45	0	
46	0.2	
47	0.2	
48	-4.5	

	B	C	E
Q11	1.4	4.5	0.7
12	1.4	2.0	0.7
13	2.0	4.5	1.4
15	1.4	4.5	0.8
16	1.4	4.5	0.8
17	1.7	4.5	1.2
19	0.1	2.5	0.1
20	0.1	4.7	0
26	1.1	0	1.6
29	1.7	0	2.3
30	2.3	0	2.9
31	1.7	0	2.3
32	0.1	2.5	0
33	0.1	1.7	0

	S	G	D
Q1	2.2	1.3	4.6
2	2.4	2.5	4.6
3	0.3	0	4.6
4	0.9	0	4.7

	1	2	3	4	5	6
Q23	4.5	1.5	1.0	4.5	1.5	1.0

TOR VIEW OF MAIN BOARD



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Pattern side parts are follows.

Ref.No	Index	Ref.No	Index	Ref.No	Index	Ref.No	Index	Ref.No	Index
IC2	C6	R60	1-D-11	R191	3-E-13	R313	3-B-21	C58	4-C-3
IC3	C7	R61	3-B-9	R193	5-D-9	R314	5-A-4	C59	2-B-2
IC5	C6	R62	1-D-16	R194	4-D-2	R317	3-B-19	C61	4-D-6
IC8	B5	R68	1-D-13	R196	5-D-8	R318	3-A-2	C63	4-D-1
IC9	C6	R70	2-D-15	R198	5-D-2	R319	5-B-16	C64	4-D-8
IC10	C5	R72	2-D-1	R200	4-D-3	R320	5-A-2	C65	5-D-16
IC11	B7	R73	2-D-7	R201	3-E-8	R321	3-A-8	C66	5-C-4
IC18	C5	R74	1-D-21	R202	3-E-18	R323	5-A-8	C69	4-D-10
IC21	B5	R76	3-C-2	R205	3-E-9	R324	4-A-4	C71	4-D-11
IC23	A4	R77	2-D-10	R209	3-E-11	R336	4-E-26	C72	3-E-10
IC25	4-B-7	R81	3-A-3	R213	3-E-15	R337	5-E-11	C74	5-C-3
IC28	A4	R84	2-D-16	R218	4-E-8	R338	4-E-24	C75	5-C-7
Q1	2-E-1	R87	2-D-13	R220	3-E-6	R339	5-E-12	C78	5-C-11
Q2	5-A-3	R88	2-D-2	R227	4-E-2	R500	1-D-4	C80	4-D-5
Q3	5-B-1	R94	2-C-4	R228	5-D-14	R501	1-D-3	C81	5-D-6
Q4	5-A-9	R95	3-C-3	R230	5-D-10	R502	1-D-6	C82	4-D-9
Q11	3-B-5	R97	3-C-7	R231	4-E-15	R505	1-D-5	C83	5-C-12
Q12	3-B-13	R103	1-D-18	R232	3-E-3	R508	3-E-19	C84	5-D-3
Q13	3-B-3	R108	1-D-9	R233	5-D-1	R509	4-E-11	C85	4-E-7
Q15	3-C-17	R110	1-D-10	R235	5-C-5	R513	4-E-27	C87	3-E-2
Q16	3-C-11	R111	3-C-9	R236	5-C-13	R515	2-B-7	C88	5-D-12
Q19	3-E-5	R112	1-D-15	R237	5-D-11	R518	1-D-26	C89	4-E-16
Q20	5-E-2	R113	3-D-1	R239	5-D-13	R520	2-E-4	C92	5-E-4
Q23	3-C-6	R116	1-D-20	R240	3-E-16	R521	2-E-6	C94	4-B-3
Q29	4-E-10	R117	3-A-6	R250	4-E-21	R522	2-E-5	C99	5-C-9
Q30	4-E-17	R118	1-E-3	R251	4-E-25	R529	2-D-6	C100	5-B-12
Q32	4-E-12	R120	1-D-8	R252	4-E-22	R533	4-C-2	C101	5-B-4
Q33	4-E-5	R121	1-E-2	R253	4-E-20	R534	4-C-4	C102	5-C-1
D2	3-E-12	R123	1-D-7	R255	4-B-4	R535	4-E-6	C105	3-A-4
D7	1-D-12	R124	1-A-2	R257	5-C-6	R536	3-E-17	C111	3-B-1
D8	1-C-2	R125	3-D-3	R259	5-B-8	R537	2-D-8	C114	4-A-5
D9	1-C-1	R129	2-D-14	R265	4-B-6	R538	2-D-5	C118	5-B-9
D10	1-C-4	R132	4-C-5	R267	5-B-13	R541	1-B-2	C119	5-A-7
D11	1-C-3	R133	3-D-4	R268	5-B-3	R542	1-A-11	C128	2-E-3
D12	1-A-4	R141	3-D-6	R270	5-C-10	R543	1-A-10	C141	2-E-2
D13	2-B-5	R143	3-D-5	R271	5-B-11	R544	4-E-4	C175	2-B-8
D16	4-B-5	R151	4-C-6	R275	5-B-7	R545	4-E-11	C176	2-A-2
D22	1-B-4	R157	4-C-8	R276	5-B-2	R546	4-E-3	C177	2-B-9
D23	5-E-6	R158	2-E-8	R279	5-B-6	C11	2-A-11	C181	1-D-23
D24	5-E-10	R159	2-E-7	R280	5-B-14	C13	2-A-6	C185	3-C-15
D25	5-E-8	R160	4-C-1	R283	5-C-8	C14	2-A-9	C186	3-E-14
D26	5-E-1	R161	3-D-7	R285	5-B-10	C18	3-C-16	C187	1-A-1
D27	1-A-3	R162	2-C-1	R287	5-B-5	C19	3-B-17	C199	5-E-5
R3	1-A-12	R163	2-D-12	R288	5-C-2	C21	3-C-4	C200	4-A-3
R19	2-A-10	R165	3-D-8	R289	5-E-7	C25	1-D-14	C202	5-A-10
R21	2-A-8	R167	3-A-7	R290	4-B-9	C26	3-C-5	C203	5-A-1
R24	2-A-5	R170	3-D-10	R291	4-B-8	C28	2-C-6	C204	4-E-23
R32	3-B-6	R171	2-D-11	R292	3-B-23	C29	2-C-2	C205	2-D-9
R37	3-B-10	R172	3-D-9	R294	4-A-8	C30	2-C-3	C206	2-A-4
R38	3-B-8	R173	4-C-7	R295	5-E-9	C31	2-C-5	C208	2-A-12
R39	3-B-7	R175	3-E-1	R299	4-A-6	C36	2-D-4	C209	2-A-7
R44	3-B-11	R182	1-A-5	R300	4-A-7	C37	1-D-25	C210	2-A-3
R45	3-B-12	R183	5-D-4	R302	3-B-18	C38	2-D-3	C212	4-E-18
R46	3-A-2	R185	4-E-14	R304	5-A-6	C40	3-A-5	C213	4-E-28
R47	2-B-10	R186	5-D-5	R306	4-A-1	C44	3-C-10	L7	2-C-7
R56	3-B-24	R187	5-D-15	R307	3-B-20	C45	3-C-13	L10	3-C-1
R57	3-C-14	R188	3-E-7	R308	3-B-15	C46	3-D-2	L13	1-D-24
R58	3-B-14	R189	3-E-4	R309	5-A-5	C56	2-B-3	L15	1-E-1
R59	3-C-8	R190	5-D-7	R310	4-B-1	C57	2-B-4	L24	4-E-9

<Wave Forms>

C	E
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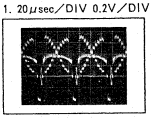
4.5	1.4
4.5	0.8
4.5	0.8
4.5	1.2
2.5	0.1
4.7	0
0	1.6
0	2.3
0	2.9
0	2.3
2.5	0
1.7	0

G	D
	1.3	4.6
	2.5	4.6
	0	4.6
	0	4.7

2	3	4	5	6
1.5	1.0	4.5	1.5	1.0

1. 20μsec/DIV 0.2V/DIV



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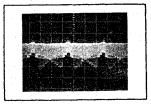

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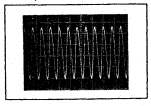

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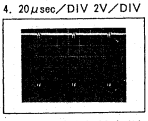

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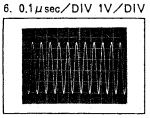
6. 0.1μsec/DIV 1V/DIV



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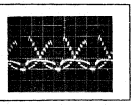

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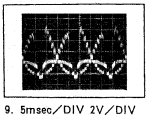
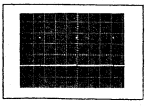
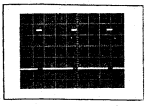


9. 5msec/DIV 2V/DIV

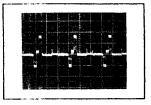


10. 20μsec/DIV 1V/DIV

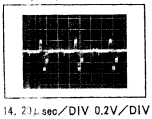


11. 20μsec/DIV 0.1V/DIV

12. 20μsec/DIV 0.2V/DIV

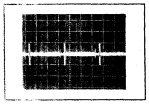


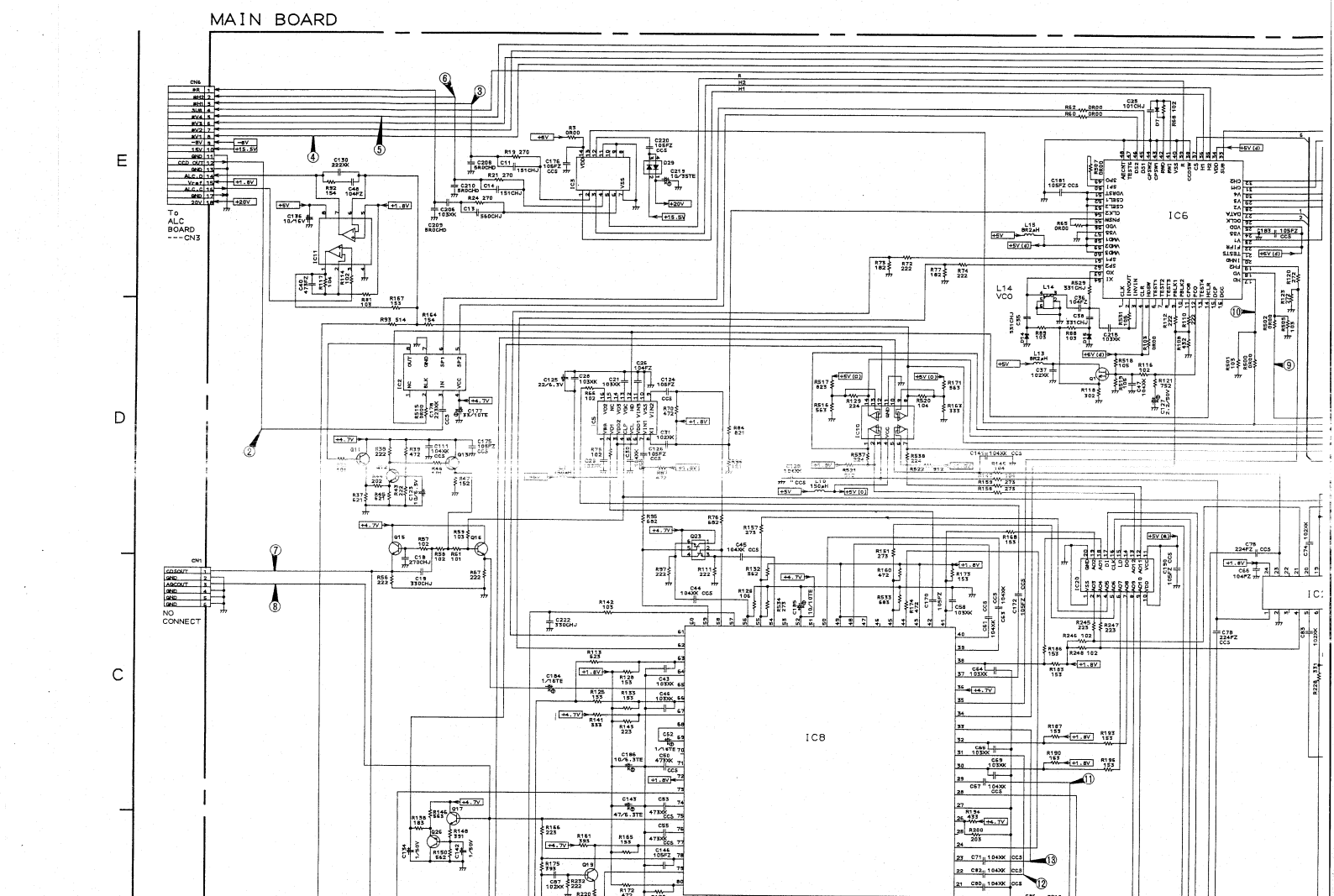
13. 20μsec/DIV 0.2V/DIV

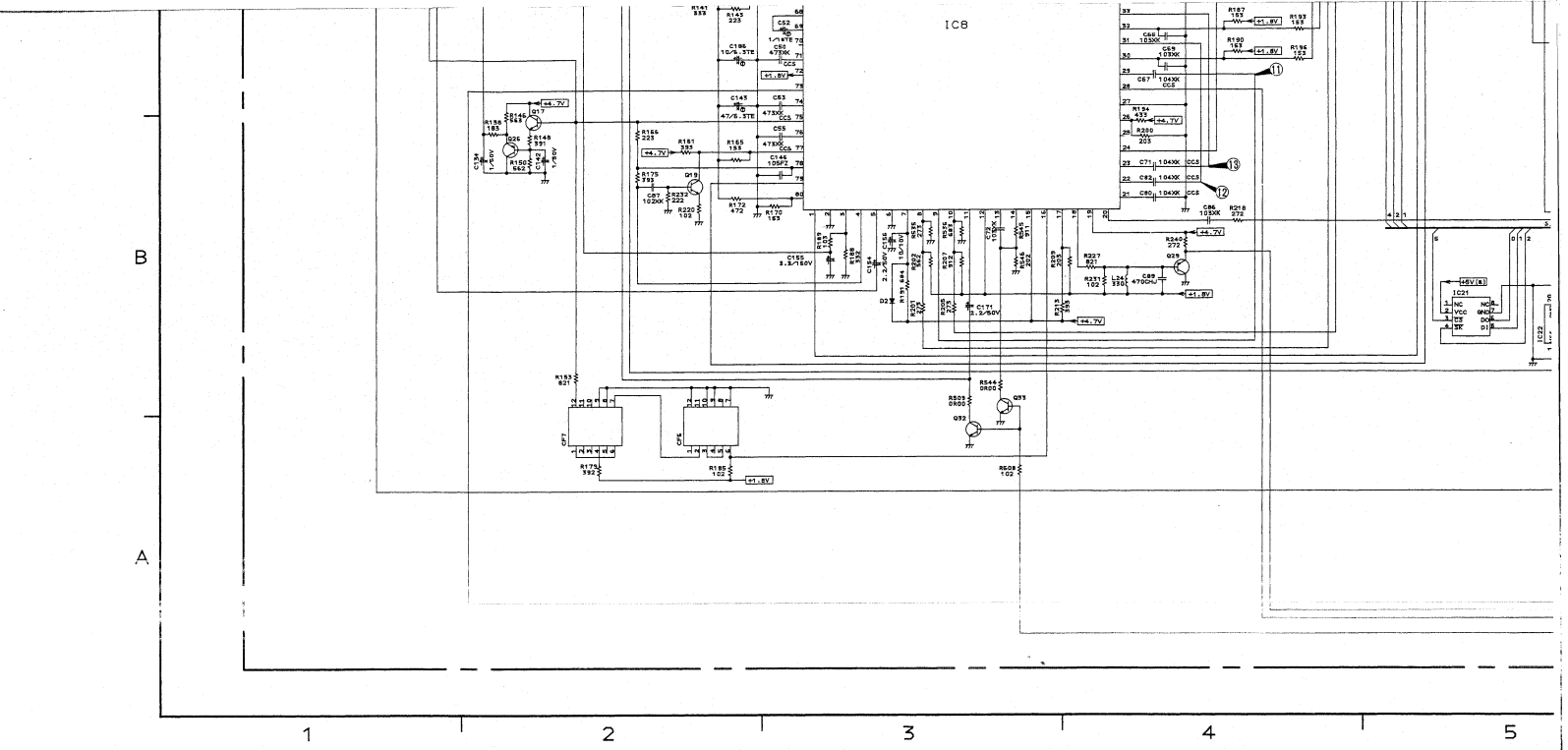


14. 20μsec/DIV 0.2V/DIV

15. 20μsec/DIV 0.2V/DIV




MAIN BOARD
E
D
C
To ALC BOARD ---CN3
NO CONNECT
IC6
IC8
L14 VCO



〈Index〉

MAIN BOARD

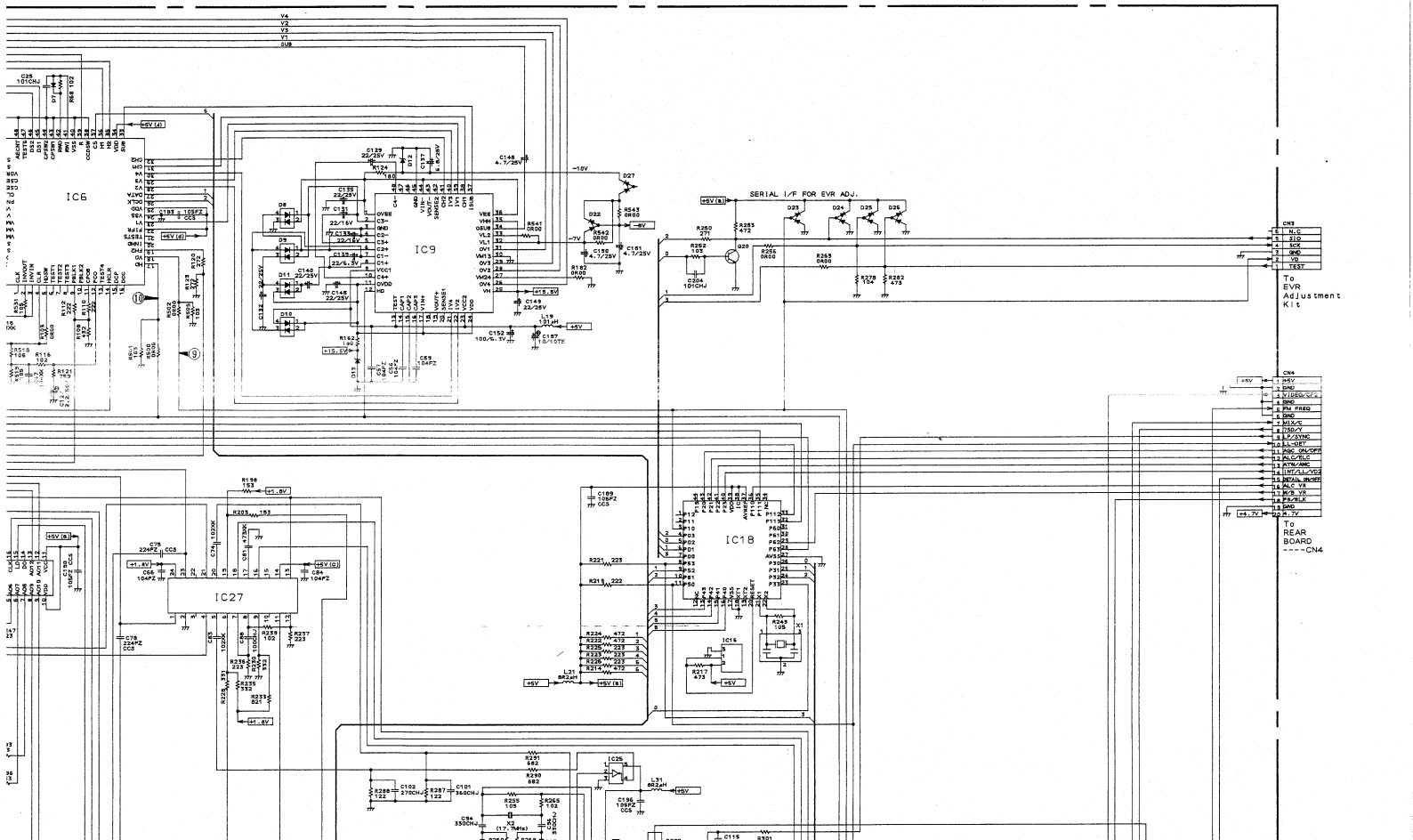
IC2	D2	IC22	B5	Q12	D1	Q32	A3	D16	B6	D28	B7
IC3	E2	IC23	B6	Q13	D2	Q33	B3	D17	B6	D29	E3
IC5	D2	IC25	C7	Q15	D2	D2	B3	D18	A7		
IC6	E5	IC26	B7	Q16	D2	D7	E4	D19	A7		
IC8	C3	IC27	C5	Q17	B2	D8	E5	D20	A7		
IC9	E6	IC28	A8	Q19	B2	D9	E5	D21	A7		
IC10	D3	IC29	A7	Q20	E7	D10	D5	D22	E6		
IC11	E1	Q1	D4	Q23	D3	D11	E5	D23	E7		
IC16	C7	Q2	B6	Q26	B2	D12	E6	D24	E7		
IC18	D7	Q3	A6	Q29	B4	D13	D6	D25	E7		
IC20	C4	Q4	A6	Q30	B7	D14	D4	D26	E8		
IC21	B5	Q11	D1	Q31	A7	D15	D4	D27	E7		

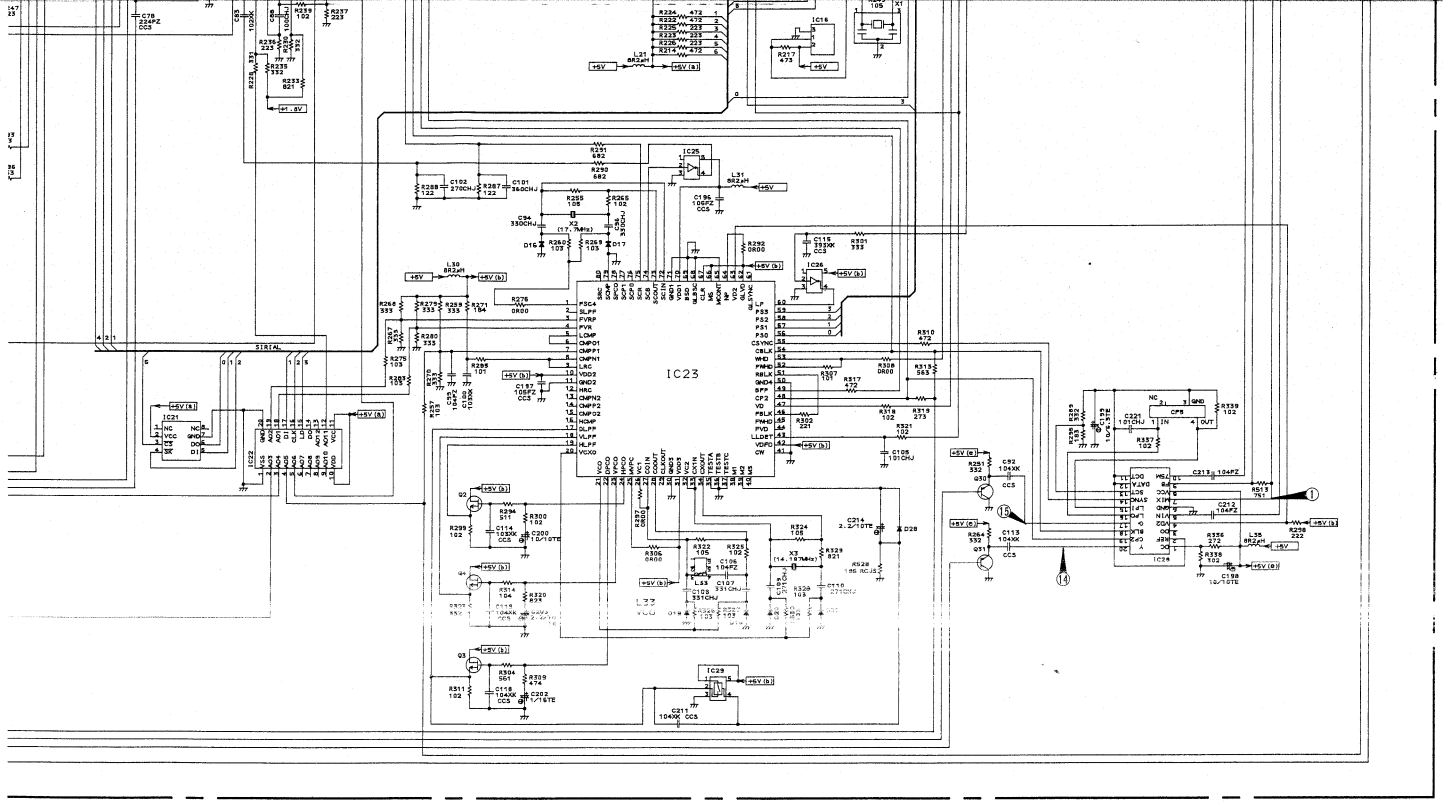
Note: The value indicated in schematic diagram should be read as follows:

□ □ □
- Multiplier (0 - 5)
- 2nd. Significant Digit (0 - 9)
- 1st. Siginificant Digit (1 - 9)

〈Example〉
For Resistor:
330 ⟶ 33 x 10^0 = 33Ω
561 ⟶ 56 x 10^1 = 560Ω
123 ⟶ 12 x 10^3 = 12kΩ
0R00 = 0 Ω

M OF MAIN BOARD (WV-CP210, WV-CP214)





5 6 7 8 9

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<Example>

vlultiplier (0 - 5)
2nd. Significant Digit (0 - 9)
1st. Siginificant Digit (1 - 9)

For Resistor:

330 ⟶ 33 x 10^0 = 33Ω
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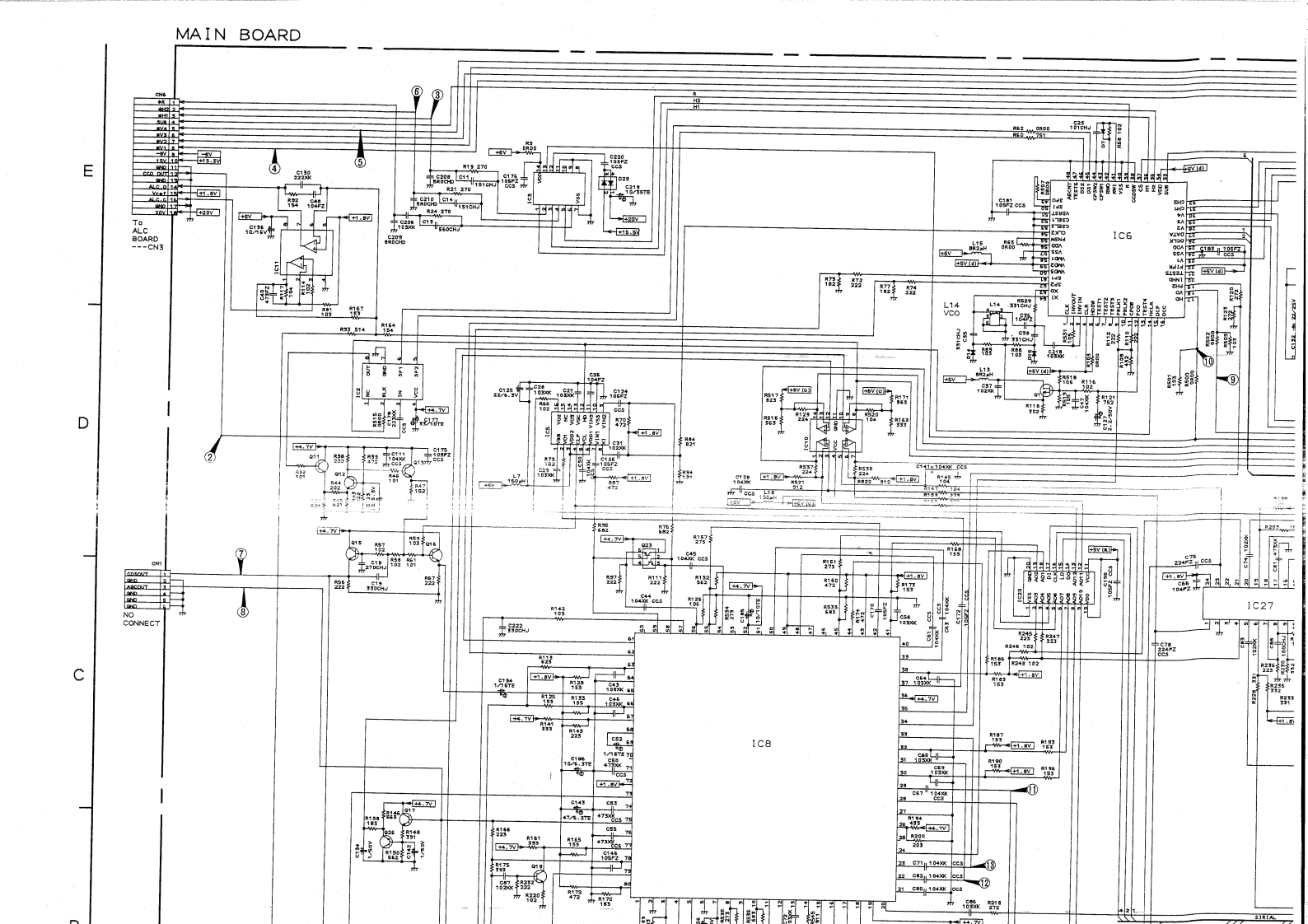
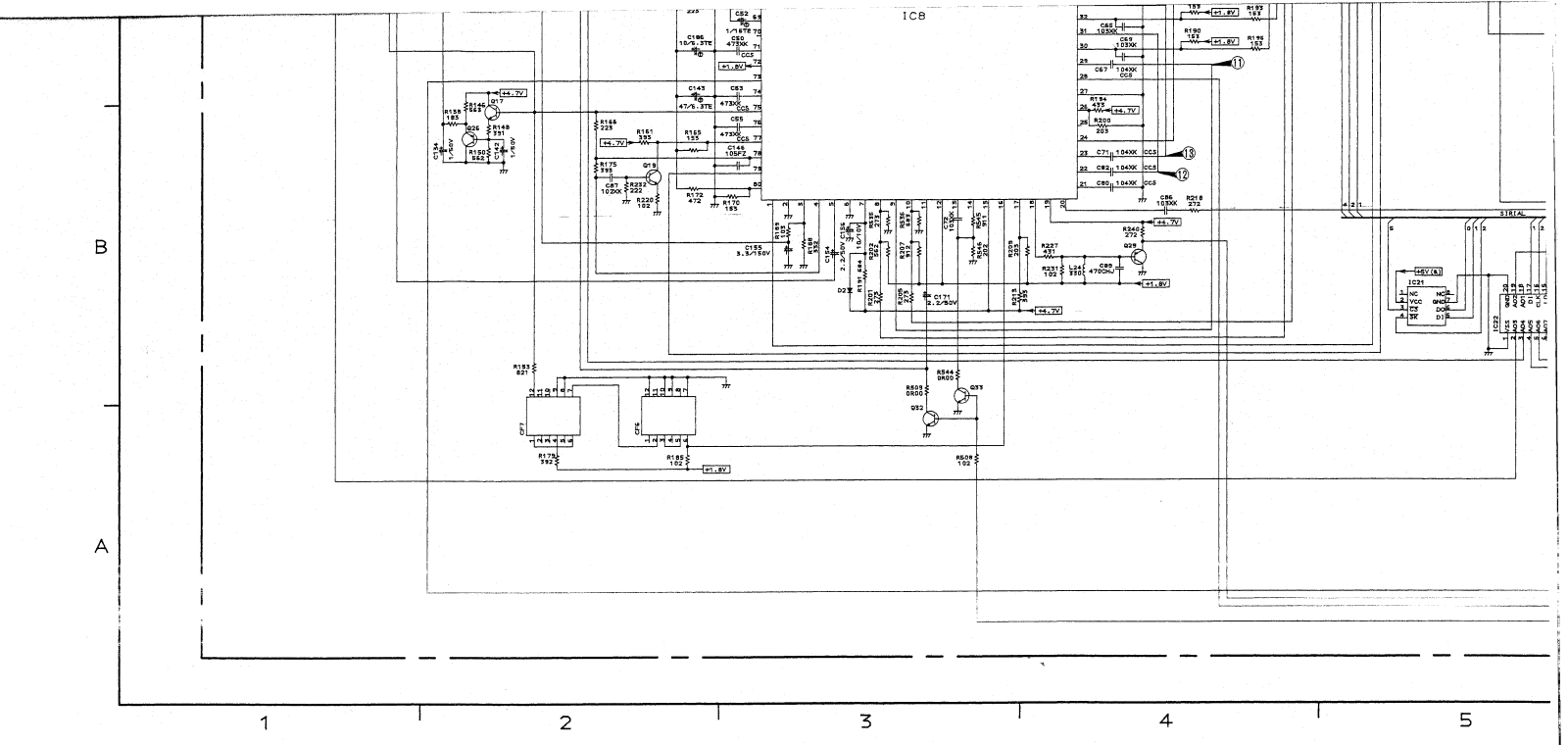
For Capacitor:

820 ⟶ 82 x 10^0 = 82pF
102 ⟶ 10 x 10^2 = 1000pF = 0.001μF
104 ⟶ 10 x 10^4 = 100000pF = 0.1μF

The suffix attached to capacitance indicates a type of capacitor.


MAIN BOARD
To ALC BOARD ---CN3
NO CONNECT
IC6
L14 VCO
IC8
IC27
SERIAL



<Index>

MAIN BOARD

IC2	D2	IC22	B5	Q13	D2	Q33	B3	D17	B6
IC3	E2	IC23	B6	Q15	D2	D2	B3	D18	A7
IC5	D2	IC25	C7	Q16	D2	D7	E4	D19	A7
IC6	E5	IC27	C5	Q17	B2	D8	E5	D20	A7
IC8	C3	IC28	A8	Q19	B2	D9	E5	D21	A7
IC9	E6	IC29	A7	Q20	E7	D10	D5	D22	E6
IC10	D3	Q1	D4	Q23	D3	D11	E5	D23	E7
IC11	E1	Q2	B6	Q26	B2	D12	E6	D24	E7
IC16	C7	Q3	A6	Q29	B4	D13	D6	D25	E7
IC18	D7	Q4	A6	Q30	B7	D14	D4	D26	E8
IC20	C4	Q11	D1	Q31	A7	D15	D4	D27	E7
IC21	B5	Q12	D1	Q32	A3	D16	B6		

D28	B7
D29	E3

Note: The value indicated in sche

□ □ □
- Multiplier (0 - 5)
- 2nd. Significant Digi
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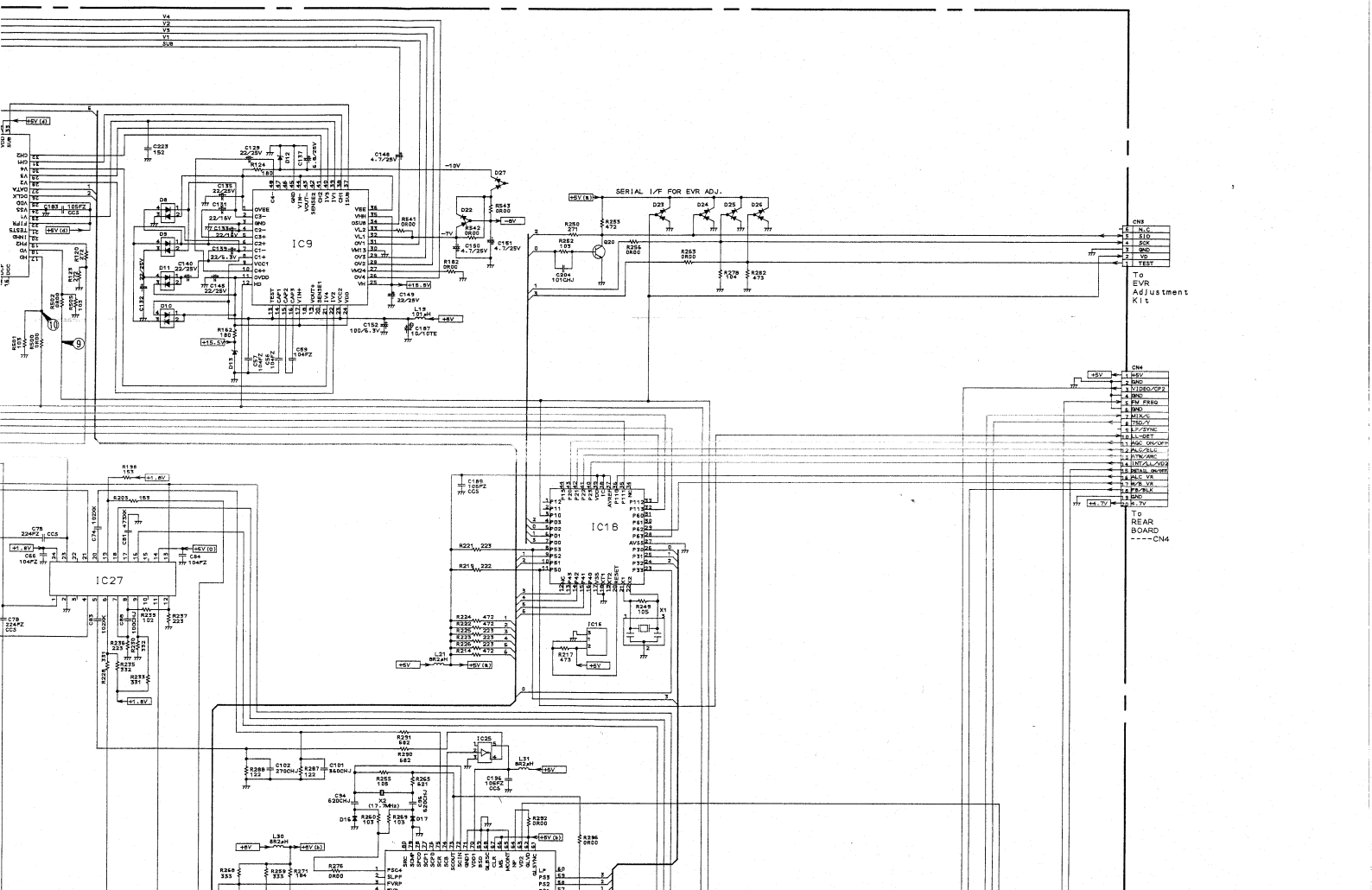
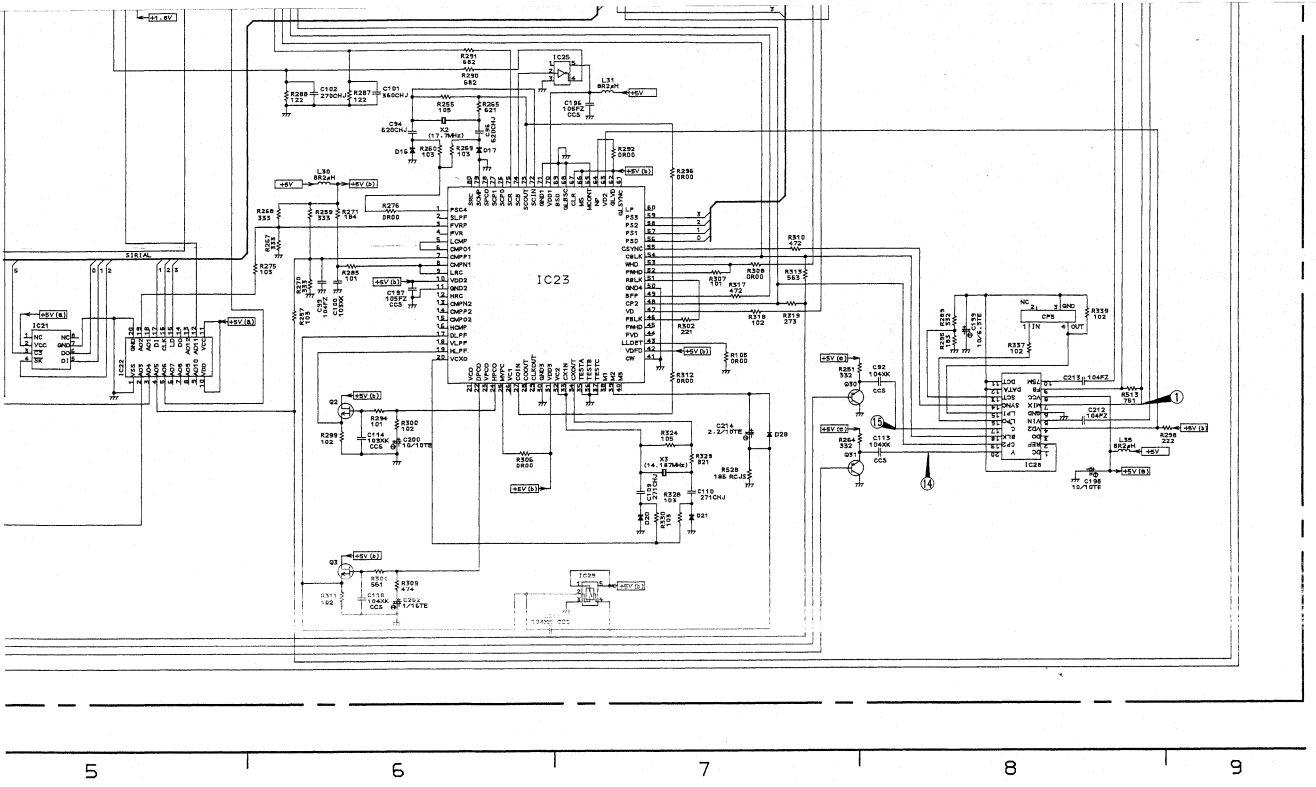
32


IC9
IC27
IC18
IC25
IC16
SERIAL I/F FOR EVR ADJ.
CN3
N.C
SIO
SCK
GND
VD
TEST
To EVR Adjustment Kit
CN4
+5V
GND
V.SYNC/CP2
GND
FM FREQ
GND
M.M.C
FSC/V
H.F/SYNC
I-SET
AGC ON/OFF
PAL/SEL
SYNC/AFC
INT/ALL/VD/2
DETAIL ON/OFF
A.C VX
R/B VX
FB/BLK
GND
+4.7V
To REAR BOARD ----CN4



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